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Supreme Court of the United States

OCTOBER TERM, 1979

No. 79-929

RSR CORPORATION,

Petitioner,

v.

FEDERAL TRADE COMMISSION,

Respondent.

APPENDIX TO PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

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December 13, 1979

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Initial Decision of Montgomery K. Hyun, Administrative Law Judge, April 20, 1976

UNITED STATES OF AMERICA

BEFORE FEDERAL TRADE COMMISSION

Docket No. 8959

In the Matter of

RSR CORPORATION, a corporation.

INITIAL DECISION

Montgomery K. Hyun, Administrative Law Judge
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PRELIMINARY STATEMENT

On April 1, 1974, the Federal Trade Commission ("Commission") issued the complaint herein, charging RSR Corporation ("RSR") with violation of Section 7 of the Clayton Act, as amended (15 U.S.C. §18), by its October

1972 acquisition of substantially all of the stock of Quemetco, Inc. ("Quemetco"), a wholly owned subsidiary of St. Joe Minerals Corporation ("St. Joe"), for about $22 million. The complaint alleges that the effect of RSR's acquisition of Quemetco may be to lessen competition substantially or tend to create a monopoly in the "U.S. lead market" and the "U.S. secondary lead market" by (1) eliminating substantial actual competition between Quemetco and RSR and between Quemetco and other firms in the relevant markets, (2) strengthening the position of RSR in the relevant markets, (3) raising entry barriers into the relevant markets, and (4) significantly increasing concentration levels in the relevant markets.

On May 13, 1974, RSR duly filed its answer to the complaint, admitting certain allegations and denying others. By order of July 3, 1974, RSR's answer was amended. RSR denied that the "U.S. lead market" and "U.S. secondary lead market" are relevant markets in which to assess the effects of the challenged acquisition. It also denied that the acquisition had any of the effects alleged in the complaint.

On July 2, 1974, RSR filed a Motion for Severance of Geographic Market Issue and Separate Trial Thereon Before Disposition of Other Issues. The motion was denied by order of July 3, 1974. On March 10, 1975, RSR filed a Motion for Summary Decision on the Geographic Market Issue and for Order Dismissing Complaint, with supporting affidavits. The motion was denied by order of March 24, 1975. On June 23, 1975, RSR filed a Motion for Adjudication of the Issue of Liability Prior to Hearings on Relief. The motion was denied by order of July 8, 1975.

Prehearing conferences were held in Washington, D.C. on July 2, 1974 and April 28, 1975 and several informal

conferences were held with counsel for the purpose of resolving outstanding procedural problems. Both parties were permitted substantial prehearing discovery and prehearing documents, including document lists, witness lists, copies of proposed exhibits and trial briefs, were exchanged. Presentation of complaint counsel's case-in-chief began in Washington, D.C. on July 21, 1975 and ended on July 31, 1975. Defense hearings began on September 3, 1975 and ended on September 19, 1975. Rebuttal hearings were held on October 6, 7 and 17, 1975. The evidentiary record was closed on January 20, 1976 after reception of "certain stipulations of anticipated testimony in lieu of hearing and reception of further documentary evidence on December 18, 1975 and January 19, 1976.[1] Counsel for the parties filed proposed findings of fact, conclusions of law and order, together with supporting briefs, on March 1, 1976 and answers on March 12, 1976. The record contains some 2,400 pages of transcript, numerous documentary exhibits and several physical exhibits.

This case is before me upon the complaint, answer, testimony and other evidence, proposed findings of fact and conclusions of law and order and briefs filed by the parties. These submissions have been given careful consideration and, to the extent not adopted herein in the form proposed or in substance, are rejected as not supported by the record or as immaterial. Any motions not heretofore or herein specifically ruled upon, either directly

[1] The intervals were necessary in order to accord the parties reasonable opportunity to prepare and negotiate the terms of stipulations, coincident with complaint counsel's engagement in the trial of another Section 7 proceeding before the Commission (Docket No. 8972) and the year-end holidays.

or by the necessary effect of the conclusions in this initial decision, are denied.

Having heard and observed the witnesses and having carefully reviewed the entire record in this proceeding, together with the proposed findings and conclusions submitted by the parties, the administrative law judge makes the findings set forth below.[2]

Findings of Fact

I. Definitions

1. For the purpose of these findings, the following definitions shall apply:

a. "Secondary lead" is lead recovered from scrap sources, such as scrap lead-acid type batteries. (Complaint and Answer, Par. 1(b))

b. "Primary lead" is lead produced by smelting and refining of ores and base bullion. (Complaint and Answer, Par. 1(c); Blair 33)

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[2] References to the record are made in parentheses, and the following abbreviations are used:

F — Findings in this initial decision.
CPF — Proposed findings of fact, conclusions of law and order of complaint counsel.
CRB — Complaint counsel's reply brief.
RPF — Respondent's proposed findings of fact, conclusions of law and proposed order.
RB — Respondent's brief in support of its proposed findings of fact, conclusions of law and order.
RRB — Respondent's reply brief.
CX — Complaint counsel exhibits.
RX — Respondent's exhibits.

Transcript is referred to with the last name of the witness and page number.

c. "Alloyed lead" is lead containing one or more alloying minerals. (Lospinoso 750)

d. "Soft lead" or "pure lead" is lead other than alloyed lead, containing at least 99.97 percent lead by weight. (Blair 31, 35; Ray 168; Mardick 278-79)

e. "Hard lead" is alloyed lead containing antimony or calcium as at least one of the alloying minerals. Such lead has the characteristic of hardness or strength, and is non-malleable. (Blair 31; Ray 167-68, 171; Kenny 241; Lospinoso 750-51)

f. "Antimonial lead" is alloyed lead containing antimony as the primary alloying mineral, but often containing lesser percentages of tin, arsenic and various other minerals in the form of impurities. (Kenny 241; Mardick 277; Lospinoso 738, 752)

g. "Battery groups" are the inside components of a battery that has been decased and drained of acid. (Blair 46)

h. "TEL" (tetraethyl lead) is a gasoline antiknock additive. (Prengaman 1014)

II. Identity and Business of Respondent RSR Corporation

2. Respondent RSR Corporation (RSR) is now, and was at the time of its acquisition of Quemetco, Inc. (Quemetco), a Delaware corporation. Its principal office and place of business at the time of the acquisition was at 2727 North Westmoreland, Dallas, Texas 75222. (Com-

plaint and Answer, Par. 2) Its principal office and place of business today is at 1111 West Mockingbird Lane, Dallas, Texas 75247. (Lospinoso 713-14)

3. RSR was founded in 1970 for the purpose of acquiring and operating a lead smelting and refining plant in Newark, New Jersey, originally under the name "Revere Smelting & Refining Corporation" (Revere). (CX 25E) On October 1, 1971, RSR reorganized and simultaneously acquired Murph Metals Incorporated (Murph), which operated a lead smelting and refining plant in Dallas, Texas. (Complaint and Answer, Par. 3; CX 25E) The Newark and Dallas plants were recycling operations, that is, they produced secondary pure lead and lead alloys by smelting and refining lead-bearing scrap. (CX 25E)

4. Murph and Revere had combined sales in 1970 of about $26,198,000. In 1971, RSR had total sales of about $27,727,000 and assets of $11,620,583 as of December 31, 1971. RSR had sales of $24,000,000 for the first nine months of 1972, and assets of $12,665,507 as of June 30, 1972. (Complaint and Answer, Par. 4)

5. Murph and Revere had combined shipments of 56,000 short tons of secondary lead in 1970. Total shipments by RSR totalled 61,000 short tons in 1971 and 75,000 short tons in 1972. (Complaint and Answer, Par. 5)

6. In both 1971 and 1972, RSR was the second largest domestic producer of secondary lead in the United States. (Complaint and Answer, Par. 5; CX 64A-C *in camera*)

7. Prior to October 26, 1972, RSR produced antimonial lead and other lead alloys, lead products and pure lead. (Initial Request For Admissions and Answer, Par. 30)

8. In 1970 and 1971, approximately 65 percent of RSR's dollar net sales were derived from sales of bulk lead. (Third Request For Admissions and Answer, Pars. 38, 39) For the first six months of 1972, approximately 73 percent of RSR's dollar net sales were derived from sales of bulk lead. (Third Request For Admissions and Answer, Par. 40)

9. In 1972, a preponderance of RSR's sales of bulk lead were of antimonial lead alloys. (Answer to Third Request For Admissions, Par. 36)

10. In 1971, three battery manufacturers accounted for approximately 10 percent each of RSR's total sales and a fourth battery manufacturer accounted for about 7 percent. (Third Request For Admissions and Answer, Par. 41) During the first six months of 1972 (ended June 30), three major battery manufacturers accounted for approximately 20 percent, 14 percent and 12 percent, respectively, of RSR's total sales. (Third Request For Admissions and Answer, Par. 42)

11. Since 1972, RSR has been shifting its secondary lead production to a greater proportion of soft lead. By 1975, RSR plants were producing approximately 65 percent soft lead and 35 percent antimonial lead. This change in production was made in response to increased customer demand for soft lead. (Lospinoso 834-35)

12. In 1974, RSR's soft lead met the standards of the London Metal Exchange for lead and has been traded on that market since 1975. (Kenny 258-59; Kenkel 386; Threlkeld 1453)

13. In 1971 and 1972, RSR considered antimonial lead to be a product with a limited future, and desired to become more active in other product areas. (Lospinoso 854-55, 979-80; Hatten 1218-20) It hoped to become a "low-cost, high volume producer of lead" by acquiring a network of lead recycling plants extending across the country. (Lospinoso 852-53)

14. During that period, RSR was also faced with the need to replace its existing lead recycling plant in Newark, New Jersey. This plant was located on premises leased on a month-to-month basis from the Newark Housing Authority, and RSR was on notice that the lease would be terminated and the plant thus closed in 1973. (Complaint and Answer, Par. 31; CX 25B)

15. On August 24, 1972, RSR made a public offering of 320,000 shares of common stock. It planned to apply the net proceeds of the offering, expected to amount to $3,003,400, to construction of a new smelting and refining facility to replace the Newark plant. (CX 25C-D)

16. In 1971, RSR sold either lead alloys or soft lead in at least twenty states. (Initial Request For Admissions and Answer, Par. 31)

17. Since it was founded in 1970, RSR has been engaged in commerce as "commerce" is defined in the Clayton Act. (Answer, Par. 7)

III. Identity and Business of Quemetco, Inc., the Acquired Firm

18. Prior to its acquisition by RSR on October 26, 1972, Quemetco, Inc. (Quemetco) was a Delaware Corporation organized under the laws of Delaware with its principal office and place of business located at 720 South Seventh Avenue, City of Industry, California 91744. (Initial Request For Admissions and Answer, Pars. 1 and 2; Second Request For Admissions and Answer, Par. 1)

19. Quemetco was founded in 1946 and incorporated the following year under the name "Western Lead Products Co." (Quenell 496) In 1969, it acquired from Bunker Hill Company a secondary lead smelter located in Seattle, Washington. (Initial Request For Admissions and Answer, Par. 4) Western Lead Products changed its name to "Quemetco, Inc." in 1970. (RSR's Answer to Initial Requests For Admissions 5). At that time it operated lead recycling plants at three locations: City of Industry, California; Seattle, Washington; and Indianapolis, Indiana. (CX 18B-C; Quenell 497-98)

20. In the fiscal year ending March 31, 1968, Quemetco had sales of about $12,936,000 and assets of $5,288,035 as of March 31, 1968. (Initial Request for Admissions and Answer, Pars. 19 and 20) In 1971 Quemetco had sales of about $32,127,000 and assets of $20,132,422 as of December 31, 1971. (Initial Request For Admissions and Answer, Pars. 21 and 22) For the first nine months of 1972, Quemetco had sales of about $30.4 million and assets of $26,-243,890 as of September 30, 1972. (Initial Request For Admissions and Answer, Pars. 23 and 24)

21. Quemetco produced 39,558 short tons of secondary lead in 1971 and 43,281 short tons in 1972. (Initial Request For Admissions and Answer, Pars. 26 and 27) In 1971, the value of Quemetco's secondary lead shipments was approximately $11 million; in 1972, it was approximately $13 million. (Initial Request For Admissions and Answer, Pars. 28 and 29)[3]

22. At the time of its acquisition by RSR, Quemetco produced lead oxides, antimonial lead alloys, zinc alloys, miscellaneous lead products, special lubricants, and soft lead. (Initial Request For Admissions and Answer, Par. 8)

23. In 1969, the management of Quemetco attempted to raise money for the purpose of expanding the company's recycling operations. They considered a public offering of stock but found the market not receptive; they sought a private placement but found the cost too high. They were, therefore, receptive when officials of St. Joe Minerals Corporation (St. Joe), a leading producer of primary lead, approached them in 1970 with an interest in the purchase of the company. The purchase was consummated on December 29, 1970, and Quemetco became a wholly owned subsidiary of St. Joe. (Quenell 499)

24. In the year following its purchase of Quemetco, St. Joe authorized a Quemetco expansion program involving the construction of a replacement plant for the Indian-

[3] See also "Answer to Complaint Counsel's Motion to Have Certain Requests for Admissions Deemed Admitted" at 5-6, filed Nov. 27, 1974, and "Order Ruling on Complaint Counsel's Motion to Have Certain Requests for Admissions Deemed Admitted" at 2, filed Feb. 4, 1975.

apolis plant and a new recycling plant in Wallkill, New York.[4] (RSR's Answers to Initial Request For Admissions 10, 12-14; RSR's Answer to Second Request For Admissions 2)

25. In July 1971, Quemetco began construction of a new secondary lead smelter and refinery at Indianapolis, Indiana to replace its existing plant there. (Initial Request For Admissions and Answer, Pars. 12 and 13; Blair 60-61, 70) That plant had just commenced production of oxide and smelting of secondary lead at the time of the acquisition by RSR (CX 14; Blair 61-62, 64) but the battery breaking system was not complete at that time. (Blair 61-64; Quenell 507-08) This plant had a designed capacity of approximately 30,000-36,000 short tons of secondary lead per year, operating on a three-shift, 5-day per week basis. (Blair 70; Quenell 508-09)

26. In September 1971, Quemetco began construction of a new secondary lead smelter and refinery and oxide plant in Wallkill, New York. (Initial Request For Admissions and Answer, Par. 10; Blair 59-60) That plant had a designed capacity of approximately 30,000-36,000 short tons of secondary lead per year, operating on a three-shift, 5-day per week basis. (Blair 70; Quenell 508-09) At the time of the acquisition by RSR, the Wallkill plant had its equipment installed and had commenced the production of oxides and was in the final testing stage prior to the commencement of smelting and refining operations within one month.

[4] The Wallkill plant is referred to as the "Middletown" plant at several places in the record of this proceeding. Wallkill and Middletown are interchangeable names for the same plant.

(Initial Request For Admissions and Answer, Par. 11; Blair 60-61, 63-64; Quenell 507-08)

27. On April 21, 1972, the Federal Trade Commission announced its intent to issue a complaint challenging St. Joe's acquisition of Quemetco under Section 7 of the Clayton Act and seeking total divestiture of the Quemetco facilities. [1970-1973 Transfer Binder] Trade Reg. Rep. ¶19,966; Quenell 500) The complaint (FTC Docket 8892) was formally issued on June 29, 1972; it alleged that St. Joe's acquisition of Quemetco eliminated actual and potential competition between St. Joe and Quemetco, foreclosed St. Joe's competitors from selling lead to Quemetco, and strengthened St. Joe's dominant market position. ([1970-1973 Transfer Binder] Trade Reg. Rep. ¶¶19,966 and 20,047)

28. In view of the possibility that St. Joe would, as a result of the FTC challenge, ultimately be required to divest itself of Quemetco, RSR's management sought to determine St. Joe's interest in selling Quemetco to RSR. (Quenell 501-02) RSR's management believed that the combination of Quemetco's plants with their remaining plant in Dallas would provide a good network of lead recycling plants dispersed throughout the country. (Lospinoso 852-53; see also Craig 437)

29. On October 26, 1972, St. Joe sold all of the outstanding stock of Quemetco to RSR. (Complaint and Answer, Par. 8) The purchase price was $22 million, paid in the form of $20 million in cash and a $2 million note. The $20 million in cash was derived from a $12 million

bank loan, a $5 million note placed with private investors, and the use of approximately $3 million of the net proceeds from the August 24, 1972 public offering. (CX 14)

30. Quemetco was at the time of the acquisition and has since been engaged in commerce as "commerce" is defined in the Clayton Act. (Answer, Par. 14)

IV. The Relevant Product Markets

A. The U.S. Lead Market

31. Lead is a heavy metallic element. (Third Request For Admissions and Answer, Par. 2) It is high in density (making it an excellent shield for protection against X-ray and nuclear radiation), heavy, with poor electricity and heat conducting qualities, resistant to certain chemical substances and soft or malleable (unless alloyed with a hardening agent). Lead is adaptable to a wide range of uses. (Third Request For Admissions and Answer, Par. 3; Prengaman 1003) Because of its unique properties, lead is peculiarly suited to the manufacture of a wide range of products, including batteries; gasoline antiknock compounds; bearing metals; cable covering; caulking lead; lead pipe, traps and bends; casting metals; collapsable tubes; lead foil (for bottle tops); terne metal; solder; type metal; paint pigments, and for annealing and galvanizing. (Prengaman 1007-08, 1014-15, 1017, 1019-20, 1022-29, 1033-35, 1037-38, 1041-44)

32. There are substitutes for lead in some uses. (Trozzo 1733, 1736) For example, plastic may be substituted for lead in pipe and cable covering; iron, brass, copper or steel

may be substituted for lead in ammunition; other processing techniques may be used in place of tetraethyl lead in raising the antiknock qualities of gasoline. (Trozzo 1736, 1741-42, 1832) Respondent does not, however, contend that these products should be included in the relevant market, for they are not interchangeable with lead for most end uses.

33. The record does not contain evidence of effective competition with lead by substitute products for the principal uses of lead. United States consumption of lead increased steadily from 1968 to 1972 despite substantial fluctuations in its price. (CX 19C, Table 1)

34. "Primary lead" is lead produced by the smelting and refining of lead ores and concentrates. (Blair 33; Ray 168; Kenny 242; Mardick 274; Craig 406-07; Quenell 499; Prengaman 1003; Cassara 1349; Bers 1256; Threlkeld 1446; see also Complaint and Answer, Par. 1(c)) "Secondary lead" is lead produced by the smelting and refining of lead-bearing scrap; it is also referred to as "recycled lead". (Blair 20; Ray 168-69; Kenny 241-42; Mardick 271; Craig 410-11; Quenell 499-500; Prengaman 1004; Bers 1256; Cassara 1349; Threlkeld 1446; see also Complaint and Answer, Par. 1(b))

35. Lead is used in two different forms, as pure or soft lead and as alloyed lead. Pure lead is a product that is virtually all lead, with only minor traces of impurities; it is also called "soft lead" because of its malleability (Blair 31; Lospinoso 715, 751; Prengaman 1005) and accounts for about two-thirds of total lead consumption in

the United States. (RX 61V, Table 14; RX 80; RX 81; see also Barber 2036-38, 2044-50, 2238-39) Primary soft lead and recycled soft lead, when made to conform to the same specifications, are interchangeable for the principal end uses of soft lead. (Blair 83; Lospinoso 716, 815-17; Prengaman 1004, 1007-45; Bers 1256-57) "Hard lead" is an alloy of lead and other elements such as antimony, calcium, tin or arsenic; the elements are added to increase the strength of the product. (Blair 31; Lospinoso 750-52; Prengaman 1006) Hard lead made from primary lead and hard lead made from recycled lead, when made to conform to the same specifications, are interchangeable for the principal end uses of hard lead. (Lospinoso 815, 817-19; Prengaman 1004, 1009-37; Bers 1257-58)

36. The Lead Industries Association is an industry-wide trade association to which processors of lead and manufacturers of lead products belong. The organization seeks to promote the use of lead. (Mardick 309; Craig 404)

37. The parties agree that the U.S. lead market comprising primary and secondary lead is an appropriate product market for the purposes of this proceeding.

B. The U.S. Secondary Lead Market

38. Within the overall U.S. lead market, there are two distinct submarkets, the production and sale of primary lead and the production and sale of secondary lead. The two submarkets are distinguished by significant differences in production, marketing, end uses, vendors and prices.

39. Industry witnesses and lead purchasers recognized the term "secondary lead" as referring to the smelting and

refining of lead from scrap (or recycled) sources. (Blair 20; Warrender 124; Ray 168-69; Kenny 241; Mardick 271; Kenkel 361, 370; Craig 410-11; Quenell 499; Prengaman 1004; Bers 1241, 1256; Cassara 1349; Threlkeld 1446) Likewise, industry witnesses and lead purchasers recognized the term "primary lead" as referring to the smelting and refining of lead from ores and base bullion. (Blair 33; Warrender 124; Ray 168; Kenny 242; Mardick 274; Kenkel 361, 364; Craig 406; Quenell 499; Prengaman 1003; Bers 1241, 1256; Cassara 1349; Threlkeld 1446)

40. These terms are commonly used in the lead industry. (Blair 20, 33; Ray 168-69; Kenny 241-42; Mardick 271; Craig 406, 410-11; Quenell 499; Lospinoso 875)

41. RSR recognizes that it competes primarily with other secondary smelters and refiners. It stated in filings with the Securities and Exchange Commission on June 7 and August 24, 1972:

> The Company competes not only with other independent secondary producers, but also with smelting and refining divisions of integrated manufacturers of lead products, as well as, to a limited extent, with producers of primary lead. (CX 25G; CX 26B)

42. The industry trade association, the Lead Industries Association, publishes statistics which distinguish between primary and secondary lead. (Mardick 309; Craig 431)

43. The U.S. Bureau of Mines also publishes several statistical reports which separately state production information for primary and secondary lead. (CX 19) However, it provides no similar breakdown in reporting lead consumption or imports. (Ryan 654, 685-86)

44. The firms engaged in the production and marketing of primary and secondary lead are generally distinct. (Answer to Third Request For Admissions, Par. 21; Craig 428-29; Quenell 536-37, 620)

45. ASARCO is engaged in the production and marketing of both primary and secondary lead. ASARCO, however, conducts its primary and secondary lead production and marketing operations in two distinct divisions, ASARCO itself and Federated Metals Division. Federated embraces all of the company's secondary lead operations, including both production and marketing. (Kenkel 360-62, 390) Federated represents a small percentage of ASARCO's overall production and marketing of lead in the U.S. lead market. (CX 64B, *in camera*)

46. Several producers formerly smelted both primary and secondary lead but have since ceased their secondary lead smelting activity. (See Craig 429)

47. In 1969, Bunker Hill Company sold its secondary lead smelter to Quemetco. (Blair 19-20; Craig 429-30; Quenell 498; see also Kenkel 363, 395, 398)

48. AMAX, in the late 1940's or early 1950's, discontinued secondary lead smelting and sold its equipment. (Lospinoso 956-57)

49. Eagle Pitcher and Bunker Hill once were in the secondary lead business together but that operation has been sold. (Craig 429-30)

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50. On the other hand, UV Industries, formerly U.S. Smelting, Mining and Refining, produced both primary and secondary lead in 1971 and 1972. (CX 64B, *in camera*) It has now left the primary smelting business. (Kenkel 393-94)

51. NL Industries, Inc. (NL) and RSR have re-sold primary lead bought from other sources, but they produce only secondary lead. (Ray 221; Mardick 275, 323) Phillips Brothers, Co. and other brokers also sell both primary and secondary lead. (Ray 222)

52. Firms engaged in the recycled lead business are generally not engaged in the smelting and refining of any other metal. In contrast, firms engaged in primary lead smelting generally smelt and refine and sell many nonferrous metals. (CX 2B; Mardick 270-71, 294-95; Craig 405; Cassara 1323-24)

53. The executive vice president of St. Joe Minerals Corporation, a leading producer of primary lead, stated that his company would not consider de novo entry into the secondary lead business.

> We considered it was a very different type of business from a commercial sense than the business that we were in. The feed end of the business is a matter of being able to purchase in one way or another scrap, which is really a business all its own and very different from the traditional business that we have been in in finding, developing and producing from [ore] bodies.
>
> The talents of people in that business would be expected to be different from those who had gone into

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> our kind of business so that it would be a difficult thing. I think we were aware of the difficulties that companies had had who had tried being basically primary producers to go into the secondary business and to the best of my knowledge, had uniformly failed to make a successful business out of the secondary. (Cra[illegible])

54. The production of secondary and primary lead is distinct in numerous respects. (Warrender 125-26)

55. These two processes start with different raw materials.

56. The production of primary lead utilizes ore from a mine as the basic raw material. (Third Request For Admissions and Answer, Par. 7; Mardick 289; Craig 408-09)

57. The production of secondary lead utilizes scrap batteries as the principal raw material, with the remaining raw materials consisting of TEL slag, fumes, dust, drosses, residues and miscellaneous lead bearing scrap. (Complaint and Answer, Par. 23; CX 19U, Table 9; Blair 19, 26; Mardick 289-90; Kenkel 362; Quenell 526; Lospinoso 774, 989; Bers 1235, 1242) Battery scrap constitutes the bulk of the raw material used in the production of secondary lead. (CX 19U, Table 9; Mardick 290; Quenell 526; Lospinoso 989)

58. Arising from differences in raw materials of primary and secondary lead production are differences in costs and profit margins, the scale of the processing, location of the plants, relative costs of the processing, methods of processing, equipment used in the processing and finally, the output of the two processes.

59. There are different cost structures and profit margins for primary and secondary lead producers. (Mardick 274-75; Prengaman 1098; Cassara 1394)

60. In the instance of a primary lead smelter, the source of raw materials is generally a wholly owned mine which has a relatively fixed cost of operating, a cost that is independent of the marketing price of lead. (Answer to Third Request For Admissions, Par. 20; CX 22C; Craig 426, 468; Quenell 600) Thus, if demand for primary lead lessens significantly, the fixed costs of raw material and processing makes it difficult for the producers to make a profit. (Mardick 274-75) In the instance of a secondary lead smelter, the source of raw material is scrap which varies in price with the demand for secondary lead. (CX 22C; Kenkel 370-71; Craig 426; Bers 1289-90) Thus, if demand for secondary lead falls significantly, the secondary producer's profit does not experience a decline comparable to that of the primary producer, as costs of raw materials fall at the same time as does his demand. (Mardick 274-75)

61. A primary lead smelter and refinery possesses economies of scale associated with a constant supply of lead ore with the same or similar lead content. (Answer to Third Request For Admissions, Par. 31; Fourth Request For Admissions and Answer, Pars. 9, 11, 12; Craig 414-15) Generally, primary lead smelters and refineries require fewer adjustments of machinery, to account for different levels of purity in raw materials, than do secondary lead smelters and refineries. (Answer to Third Request For Admissions, Par. 32)

62. In contrast to the primary smelter, the secondary smelter does not have a constant supply of raw materials

of the same or similar lead content. The secondary lead facility's feed contains "a tremendously wide range of impurities." (Prengaman 1048, 1052, 1098)

63. Secondary lead smelting is done on a much smaller scale than is primary lead smelting. The overall capacity of a secondary smelter is far smaller than that of a primary smelter. (Answer to Third Request For Admissions, Par. 33; Blair 40; Mardick 293-95; Craig 411, 419; Lospinoso 986)

64. Primary lead facilities must be much larger in scope in order to handle economically the ore generated by the mine and the by-products of the ore. (Blair 40; Mardick 293-96; Kenkel 364)

65. The largest secondary lead smelters have a yearly capacity of 40,000 short tons of lead, with the typical secondary smelter having a capacity of 20,000-35,000 tons. (Mardick 273; Craig 419; Bers 1243) The capacity of primary lead smelters is much greater, ranging from 100,000 to 225,000 short tons of lead. (Mardick 295; Craig 413, 419)

66. Because of these differences in scale between a primary and a secondary smelting operation and the resultant greater complexity of the former, it is not possible to take the supervisory employees of a secondary smelter and put them in charge of a primary smelter. (Craig 418; Cassara 1388)

67. Differences in scale reflect in part the difference in the locational source of raw materials.

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68. Secondary lead smelters are located throughout the United States, generally near or in major industrial cities, the source of the raw materials for a secondary lead smelter. (Blair 40)

69. In contrast, primary operations are located near the few lead mines or points of importation of foreign ores, concentrates or base bullion, away from cities. (Answer to Third Request For Admissions, Par. 30; Fourth Request For Admissions and Answer, Pars. 4, 5, 6, 7, 8, 15, 16; Blair 40)

70. In both primary and secondary lead processing, the production of lead can be divided into four stages, viz., material preparation, smelting, refining, and by-product and waste disposal. (Lospinoso 788) The basic smelting and refining process is "conceptually similar" for both primary and secondary lead. (Craig 411-12)

71. The material preparation stages of primary and secondary lead processing are distinct.

72. Ore for a primary lead smelter is crushed at a mill located adjacent to the mine and then sent through a separation process to remove the excess rock and certain other minerals. (Third Request For Admissions and Answer, Par. 7; Blair 44-45; Craig 409; Lospinoso 804)

73. In the process of separating the lead concentrate from the unprocessed ore, certain other mineral concentrates, *e.g.*, zinc and copper, are also separated. (Third Request For Admissions and Answer, Par. 5; Craig 409)

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These other mineral concentrates are then sold or processed by the primary smelter in facilities separate from those used in lead smelting and refining. (Craig 409-10)

74. Lead ore typically is a sulfide ore, containing a high sulfur content. (Blair 34; Mardick 289; Craig 412) To remove this sulfur it is necessary to send the crushed ore through a sintering plant to remove the sulfur content. (Third Request For Admissions and Answer, Par. 8; Blair 34, 44-45; Mardick 293; Craig 409, 412; Quenell 535; Lospinoso 804-05)

75. To erect a sintering plant for a primary lead smelter requires a "reasonably substantial" expenditure. (Craig 412; Bers 1317) Such an expenditure is justified only by a large quantity of uniform material, a condition present only at a primary facility. (Bers 1317)

76. Secondary smelters have to prepare two inputs, scrap batteries and TEL slag. Other materials are simply fed "as is" into the reverberatory or blast furnace. (Lospinoso 790)

77. Scrap batteries must be drained of their sulfuric acid and decased to obtain the "battery group" as the first step in preparing them to be smelted. (Blair 46; Mardick 280, 282; Lospinoso 784, 788) This may be done either by cutting off the top and simply dumping out the battery groups or grinding up the battery and separating the metal bearing materials through a chemical separating system that works on the principle of gravitational differences among the components. (Blair 46-47; Mardick 280, 282; Lospinoso 784, 788)

78. TEL slag is prepared by washing out the sodium chloride which contaminates it. (Bers 1231-32)

79. Secondary lead smelters do not possess facilities for processing and upgrading the ore as received from the mines. (Craig 411; Quenell 535)

80. Secondary lead facilities also do not have sintering plants as do primary facilities. (Mardick 294; Craig 411-13; Quenell 535-36)

81. The smelting processes of primary and secondary lead are distinct.

82. The smelting process used in secondary lead generally is a two step process, utilizing both reverberatory and blast furnaces. (Craig 410-411; Lospinoso 790-92; Bers 1247-49)

83. The feed material, *i.e.*, battery scrap, is first heated in a reverberatory furnace which is basically an oxidizing system. (Blair 28-29; Lospinoso 790-91; Bers 1247-49)

84. From the reverberatory furnace two valuable products are obtained, viz., relatively pure soft lead and a lead bearing slag high (or rich) in antimony and other alloy content. (Blair 28; Mardick 282-83; Lospinoso 791; Bers 1247-49)

85. The slag from the reverberatory furnace is then processed in a blast furnace, which is basically a reduction process. (Blair 28-29; Mardick 282-84; Lospinoso 792, 794; Bers 1247-49)

86. In addition to the slag from the reverberatory furnace, the feed for the secondary blast furnace may consist of some battery groups or other scrap, including TEL slag. (Blair 29-30; Lospinoso 792; Bers 1247-49)

87. The purpose of adding additional feed materials to the reverberatory slag is to produce an antimonial lead containing a percentage of antimony and other elements close to the specifications of the battery manufacturers. (Blair 30; Bers 1247-49) If processing the reverberatory slag in a blast furnace results in an antimonial lead output containing 10 percent or more antimony, the addition of other feed materials results in antimonial lead containing from 4 percent to 6 percent antimony which comes close to meeting the battery manufacturers' specifications. (Blair 29-30)

88. The smelting process used in primary lead is a one step process. (Blair 34)

89. The feed material, concentrates made from ore, is heated in a large blast furnace, basically a reduction process. (Blair 34; Craig 411; Lospinoso 810)

90. Only blast furnaces are used to smelt primary lead. (Blair 34; Craig 411) Primary smelters often possess reverberatory furnaces, but utilize these solely to recover minerals other than lead found in their ore. (Lospinoso 810-11, 984-85)

91. The by-product and waste disposal operations of primary and secondary lead smelters are unique in many ways.

92. A primary lead smelter produces sulfur as a by-product of the sintering process used to prepare the raw material for smelting. (Mardick 293; Craig 411-13; Quenell 535; Lospinoso 804) The recovered sulfur is present in large quantities; therefore, primary smelters have erected large plants to process this by-product into sulfuric acid and avoid air pollution problems. (Blair 34; Mardick 293; Craig 411, 413; Quenell 535-36; Lospinoso 804-05, 812) However, in order economically to recover sulfur and convert it to sulfuric acid, one must have a smelter of not less than 100,000 short tons of lead capacity per year. (Mardick 295-96)

93. The sulfuric acid produced by the primary smelters is marketed as an industrial chemical. (Blair 34-35; Mardick 294; Craig 413; Quenell 535-36; Lospinoso 805, 989)

94. Other than the sulfur generated as a by-product of sintering, primary lead producers do not have a sulfur pollution problem. (Lospinoso 812) Thus, a primary lead smelter does not require scrubbers to process its furnace or other smelter fumes. (Lospinoso 812)

95. Sulfuric acid is involved in the recovery of secondary lead, but as an undesired waste rather than a valuable by-product which can be sold. (Blair 35)

96. Scrap batteries as delivered to the secondary smelter contain sulfuric acid, usually in a highly contaminated state. (Blair 35; Lospinoso 804)

97. The liquid sulfuric acid contained in the scrap battery is disposed of by the secondary smelter in a variety

of manners, *e.g.*, treatment by some type of neutralizing agent. (Mardick 280; Quenell 536; Lospinoso 788-89)

98. Secondary lead smelters also recover sulfur through the operation of their air pollution controls. (Blair 35; Lospinoso 798-99) Formerly this sulfur, produced as sulfur dioxide in the furnaces, was simply emitted into the atmosphere. (Blair 35; Quenell 536)

99. Sulfur is recovered in quantities insufficient to make it economical to convert it into a marketable product. (Blair 35) Therefore, the sulfur recovered by a secondary lead smelter is disposed of as a waste material. (Lospinoso 799)

100. Secondary lead facilities do not have sulfuric acid plants as do primary facilities. (Mardick 294; Craig 413; Quenell 536)

101. The method of operating blast furnaces differs between primary and secondary smelters. Primary blast furnaces, due to their much larger size and the costliness of any shutdown, are operated almost continuously, with shutdowns for necessary maintenance being made only every three or four months. (Blair 41; Craig 413-14) In contrast, the smaller secondary blast furnaces are generally operated five days a week with maintenance being done weekly. (Blair 42)

102. The production facilities for primary and secondary lead are not interchangeable. Facilities for the production of one do not possess the necessary equipment to satisfactorily produce the other. Each lacks the material prepara-

tion equipment necessary to process the other's product; primaries do not have the equipment necessary to decase batteries and secondaries do not have the equipment necessary to remove sulfur from ore. Likewise each lacks furnaces of a size and type effectively to process the other's raw material.

103. The equipment used to smelt and refine primary and secondary lead differs substantially in scale as well as the smelting process itself. (Warrender 125-26; Kenkel 364; Lospinoso 986)

104. Although both smelting processes utilize blast furnaces, those used by primaries are far larger than those used by secondaries. (Blair 34, 41; Mardick 293; Kenkel 364; Craig 417-18; Lospinoso 986)

105. Because of the differences in equipment between primary and secondary lead smelters, it is difficult or impossible for a primary smelter to process a significant amount of lead scrap or other raw materials utilized by a secondary smelter. (Blair 41-42; Kenkel 365, 368; Craig 415-17)

106. Primary smelters rarely process scrap. (CX 19T, Table 7) Only ASARCO used battery scrap at one of its primary smelters. This consisted of very small tonnages of a particular grade of scrap. (Kenkel 366-68) No other ASARCO primary lead smelter processed any scrap. (Kenkel 368)

107. Primary smelters generally can not process antimonial alloy scrap, such as batteries, because antimony

would foul up the circuit and primary smelters generally have no means for its removal. (Kenkel 365; Quenell 529)

108. The raw materials used in a secondary smelter, battery scrap in particular, consist of a substantial amount of finely divided material. (Blair 41) The processing of finely divided material in the large blast furnaces used by primary smelters would reduce the efficiency and capacity of that furnace and could plug it up and cause it to be shut down, cleaned out and restarted. (Blair 42-43; Craig 415-16, 418, 419-21) Shutdowns and start-ups of a large blast furnace are extremely difficult and costly. (Blair 42; Craig 413-14)

109. In contrast to the large blast furnace, a reverberatory furnace such as that used by secondary smelters is very good for using fine material. (Bers 1243)

110. Primary smelters cannot process TEL slag because "it has chlorine in it and the chlorine ruins their collection equipment. It eats it out." (Bers 1269)

111. Similarly it is difficult if not impossible for a secondary smelter to use lead ore as its raw material source. (Blair 42; Mardick 296-97; Kenkel 366; Craig 416)

112. Secondary smelters do not use lead ore as raw material. (Warrender 125-26; Mardick 396; Kenkel 366; Craig 415; Quenell 534-35; Lospinoso 989-90; Prengaman 1091; Bers 1242, 1316) This is due in part to the high sulfur content of lead ore. In order to handle such a high sulfur content raw material, the secondary lead smel-

ter would have to employ a new and different smelting procedure. At the very least, the lead ore would have to be sintered before being introduced into a secondary lead smelter. (Mardick 296-97; Craig 418; Quenell 535; Bers 1316-17)

113. There are substantial differences in the outputs of primary and secondary smelters resulting from the distinct processes used to produce primary and secondary lead.

114. In 1971 and 1972, the output of primary lead smelters consisted almost entirely of soft lead. (CX 19T, Table 7; CX 19U, Table 8)

115. In 1971 and 1972, the output of secondary lead smelters consisted of approximately 70 percent antimonial lead and 30 percent soft lead. (CX 19V, Table 11; CX 25E; see Craig 485) Quemetco's secondary lead production in 1971 and 1972 consisted of approximately two-thirds antimonial lead and one-third soft lead. (Blair 31; Quenell 522-23, 577) The vast majority of soft lead produced by secondary smelters is consumed internally by the producer rather than sold on the open market. (F. 146)

116. While it is possible for a primary lead smelter to produce antimonial lead from pure lead through the addition of antimony and other metals to antimony-free lead ores, or if antimony happens to be present in the lead ore, such smelters do so only in very small quantities. (CX 19U, Table 8; Blair 39; Kenkel 393, 397, 399; Craig 422-23,

484) In 1971 and 1972, such production by primary smelters accounted for less than 3 percent of their lead production. (CX 19T, Table 7; CX 19U, Table 8)

117. Antimonial lead produced by primary smelters generally is not sold to battery manufacturers, principally for two reasons.

118. It is more economical to use secondary sources to produce antimonial lead than to use primary sources. A secondary smelter's raw material already contains, at no extra charge over the scrap lead price, all the ingredients to produce antimonial lead; in contrast, a primary smelter generally would have to purchase such relatively costly metals as antimony, tin and arsenic to add to its pure lead in order to make antimonial lead. (Third Request For Admissions and Answer, Pars. 12-14; CX 22C; CX 25C, F; Blair 39; Craig 423; Quenell 529-30; Prengaman 1094, 1103-04; Bers 1262-63)

119. Antimonial lead made from primary lead is generally unsatisfactory for use in producing battery grids due to its poor castability compared to secondary antimonial lead. Small amounts of certain impurities found in secondary antimonial lead enhance its castability. (Blair 39-40; Kenny 240-41; Mardick 291-92) Primary lead processors would have to add additional alloying agents to produce a primary antimonial lead satisfactory for the manufacture of battery grids. (Prengaman 1093) A secondary blast furnace using slag from a reverberatory furnace as its principal feed produces antimonial lead con-

taining approximately 3 percent antimony, .5 percent tin, .015-.2 percent arsenic, and traces of copper, silver, nickel, and bismuth. (Blair 27-28; Mardick 281)

120. The antimonial lead produced by a secondary smelter, almost without exception, contains each of the various minerals found in the scrap or other raw materials processed. (CX 25F; Blair 28-29; Mardick 281) Thus, the secondary smelting process does not generally lose or separate minerals contained in the feed. (Blair 28-29; Mardick 294-95; Craig 422; Lospinoso 792-93; Prengaman 1104)

121. In contrast, the soft lead produced in a primary smelter contains only minute traces of minerals other than lead despite the fact that the lead ore for the primary smelter often contains other metal values, such as zinc, silver, cadmium, cobalt, mercury and bismuth. (Blair 34; Mardick 289; Kenkel 364-65; Craig 409, 421-22) Some of the minerals other than lead contained in the ore are removed during material preparation while others are removed in the refining process. (Craig 409, 421-22; Lospinoso 839)

122. In a primary smelter, metal values other than lead are recovered separately and sold either as metal or concentrates. (Blair 34, 40-41; Mardick 294-95; Kenkel 364-65; Craig 409; 421-22; Lospinoso 839)

123. The ratio between the output of alloyed lead and soft lead by secondary lead smelters is determined by the economics involved in smelting. (Blair 33; Quenell 524)

124. One secondary smelter, the Federated Metals Division of ASARCO, did not find it economically feasible to produce any soft lead and thus produced only alloyed lead in 1971 and 1972. (Kenkel 365-66)

125. The principal product of the secondary smelting process is antimonial lead. If the scrap which constitutes the recycler's raw material does not include sufficient antimony to allow production of only antimonial lead containing the percentage of antimony required, some soft lead is also produced in the course of the smelting process. (Craig 486) The smelter then has a choice of buying enough antimony from outside sources to produce more antimonial lead or to use or sell the soft lead. (Craig 487-88) Additional soft lead can be obtained by further processing of the alloyed lead, but recyclers generally do not do so because antimonial lead is considered a valuable product. (Craig 486-87; see also Mardick 285)

126. As a secondary lead smelter seeks to increase the percentage of its soft lead as a percentage of its total production, it incurs additional processing costs. (Mardick 276; Lospinoso 994) In order for a secondary lead smelter to produce increased amounts of soft lead above its normal output, the smelter must rerun the reverberatory slag back through the reverberatory furnace while the blast furnace remains idle. (Lospinoso 820-21, 837, 994) Each successive run of the slag through the reverberatory furnace yields a diminishing quantity of soft lead and a more highly alloyed antimonial lead slag. (Lospinoso 820-21, 837)

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Finally a point is reached where the high antimonial slag can no longer be run through the reverberatory furnace. (Lospinoso 837) A secondary lead producer such as RSR does not have the equipment to turn such high antimony slag into a saleable by-product. (Lospinoso 837-38, 950-51)

127. As the blast furnace remains idle while the slag is being rerun, producing more pure lead causes a secondary smelter to incur the high cost of keeping expensive equipment idle and/or continually starting and stopping such equipment. (Lospinoso 995)

128. It is more economical for a secondary smelter making oxide to purchase the majority of its soft lead needs for oxide production or fabrication rather than attempt to convert a greater percentage of its mixed antimonial lead/soft lead output into soft lead. (Blair 33; Mardick 285-86; Kenkel 365-66, 384-85; Craig 486-88)

129. In general, it takes a secondary smelter a longer period of time to produce the same number of tons of soft lead than it takes to produce hard lead. (Blair 33)

130. There are differences in the soft lead produced by primary and secondary smelters, with the product of the former typically containing fewer impurities than the product of the latter. (Blair 35-36; Mardick 290; Lospinoso 990-91; Prengaman 1097-98) Because of this difference in purity, secondary soft lead can be distinguished spectrographically from primary lead. (Mardick 291)

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131. Secondary soft lead generally contains close to the maximum impurities allowable in order to meet the ASTM specifications of 99.97 percent purity, while primary soft lead generally contains impurities in amounts far below those allowable under the ASTM specifications. (Blair 36; Lospinoso 990-91; Prengaman 1097-98; Bers 1257) The impurities generally contained in secondary soft lead are antimony, copper, bismuth and silver. (Blair 36; Bers 1257)

132. There are differences in the marketing of primary and secondary lead. These differences in marketing arise from differences in the production process and products of the two submarkets.

133. Secondary lead producers basically sell to the customers from whom their raw materials are obtained. (Quenell 525)

134. The principal customers of secondary lead producers are battery manufacturers. (CX 25E; Blair 25, 31-32; Mardick 277-78; Craig 440; Quenell 520, 525)

135. Secondary producers sell battery manufacturers almost their entire needs for hard or alloyed lead. (Ray 184; Kenny 242; Craig 424-25, 440; Quenell 529; Prengaman 1092-93, 1104-05; Cassara 1378, 2400) Primary producers "essentially don't compete for" sales of antimonial lead to battery manufacturers. (Craig 424-25; Quenell 505, 528)

136. In addition, NL and Quemetco sold oxide to battery manufacturers in 1972. These secondary lead smelters manufactured oxide principally from primary lead but to a limited extent oxide was also made from their own production of secondary soft lead. (Blair 32; Mardick 275-76, 287; Craig 446-47, 459; Quenell 523-24) Quemetco made its oxide for sale to Globe-Union from a blend of its secondary lead with primary lead in some instances in order to meet Globe-Union's specifications. (Quenell 524-25)

137. Nonintegrated battery manufacturers who made oxide did so almost entirely from primary lead. (Warrender 129; Ray 183-84; Kenny 244-45; Mardick 322-23)

138. Battery companies are the principal source of raw materials for secondary lead smelters, either through tolling arrangements or outright sale of scrap and repurchase of recycled lead. (Quenell 525-26)

139. One of the two largest domestic battery manufacturers, Globe-Union, Inc., derived its antimonial lead requirements through tolling arrangements with various secondary lead smelters. (Warrender 120, 122-23; Quenell 526) Under these tolling arrangements, Globe-Union furnished junk batteries to selected secondary lead smelters, paid these smelters a conversion fee to smelt and refine antimonial lead to its specifications from the junk batteries it delivered, and received back the lead values of its batteries. At all times Globe-Union retained title to the lead it furnished under the tolling arrangements. Globe-Union

delivered batteries to its customers in its trucks, picked up used batteries traded in to those customers, dropped these junk batteries off at the secondary smelters and picked up antimonial lead from these smelters which it transported to its battery manufacturing plants. (CX 25F; Warrender 120, 122-23)

140. Battery manufacturers other than Globe-Union have also had tolling arrangements or similar types of arrangements with secondary lead producers, including RSR. (CX 10B; Kenny 254; Craig 426; Quenell 526; Bers 1287) During the first six months of 1972, 34 percent of RSR's raw materials were obtained on the basis of conversion (tolling) arrangements. (CX 25F)

141. In contrast to its tolling arrangement with secondary producers for securing hard lead, Globe-Union purchased its requirements for soft lead from primary producers. (Warrender 129)

142. In 1972, and for many years prior thereto, two secondary lead smelters who processed TEL slag sold refined soft lead to the TEL producers. (Bers 1230-35, 1241-42, 1279)

143. Southern Lead (later Murph Metals) also sold some secondary refined lead to TEL manufacturers at least prior to 1962. (Cassara 1325-26)

144. Aside from purchases from those secondary lead smelters who reprocessed their slag, U.S. TEL producers

in 1972 and previously purchased lead from primary producers. (CX 25G; CX 26B; Craig 424, 440; Bers 1253, 1268) As the leading processor of TEL stated: "If I wanted to I couldn't have supplied du Pont with their requirements [for TEL] no matter what I did because their requirements were so great. All I did was a service for them by being able to convert the by-product back so that they would not have to throw it away, ..." (Bers 1269) By 1975, RSR was supplying some secondary soft lead, not made from reprocessed TEL slag, to TEL manufacturers. (Lospinoso 716, 946; Bers 1279)

145. Sales by secondary smelters, other than to battery companies or TEL producers, have consisted almost entirely of alloyed lead, including antimonial lead, calcium lead and lead-tin alloys. (Blair 31-32; Quenell 520, 577; Lospinoso 753; Bers 1252-53) Such secondary lead was used for products such as weights, primarily automotive wheel weights, ammunition, tubes, dies, solders, and type metal. (Blair 31; Mardick 277-78; Kenkel 362; Quenell 520; Lospinoso 753; Bers 1252)

146. Except for soft lead sales to TEL producers (F. 142-144), very little or no secondary soft lead was sold by secondary smelters in 1972 and the years prior thereto. (Blair 32; Mardick 279; Kenkel 366; Craig 482; Quenell 505) Quemetco "very rarely" sold soft lead on the open market. (Quenell 523) NL, the largest secondary lead producer in the United States, did not and does not now regularly sell secondary soft lead. (Mardick 279, 323) However, NL plans to begin producing and selling secondary soft lead in the future. (RX 142B; RX 144J; RX 145G) By 1975, RSR was selling significant quantities of secondary soft lead. (Lospinoso 834-35)

147. Soft lead and alloyed lead are generally employed for different end uses.

148. These different uses led the executive vice president of NL, the leading producer of secondary lead, to consider secondary and primary lead to be "essentially" separate markets. (Craig 439-40)

149. The largest use of lead is in the manufacture of batteries, accounting for 49 percent of 1972 consumption. (CX 19W; Table 15; Kenny 257). There are two basic uses for lead in the manufacture of batteries, production of oxide, the "active material" in the battery, and the production of the structural members of the battery, *i.e.*, the grids, posts and connectors. (Answer to Third Request For Admissions, Par. 4; Blair 15-16; Warrender 120-22; Ray 167, 170; Kenny 240-41) Use for battery oxide accounted for 26 percent of 1972 U.S. lead consumption; use for grids, posts, etc., accounted for 23 percent of 1972 U.S. lead consumption. (CX 19W, Table 13)

150. Soft lead is used in the manufacture of battery oxide. (Answer to Third Request For Admissions, Par. 4; Warrender 21; Ray 167-68, 170; Kenny 240; Prengaman 1007, 1106) Alloyed lead, specifically antimonial lead, cannot be used to produce battery oxide, as oxide made therefrom will not perform satisfactorily, if it performs at all. (Blair 36-39; Ray 170-71; Mardick 291; Prengaman 1106)

151. Alloyed lead in the form of hard lead is used by battery manufacturers to produce grids, posts, straps and connectors. (Answer to Third Request For Admissions, Par. 4; Warrender 121-22; Ray 167-68; Kenny 240; Mardick 277; Prengaman 1062) Soft lead could not practically be used for the production of grids, posts, straps, and connectors as such lead would be too soft. (Ray 171)

152. Another major use of lead is in the manufacture of ammunition which accounted for 5.7 percent of 1972 U.S. lead consumption. (CX 19W, Table 13; Lospinoso 753) Ammunition is made almost entirely from alloyed lead, specifically a low percentage antimonial alloy, sometimes containing arsenic. (Lospinoso 727, 738, 753; Prengaman 1015)

153. Cable covering in 1972 accounted for 3.1 percent of U.S. lead usage. (CX 19W, Table 13) Cable covering is often made from alloyed lead, specifically antimonial or calcium lead. (Lospinoso 753, 992; Prengaman 1022)

154. Weights and ballast in 1972 accounted for 1.4 percent of U.S. lead usage. (CX 19W; Table 13) Such weights are often made from alloyed lead, specifically a low percentage antimonial alloy. (Lospinoso 753; Prengaman 1046-47)

155. Solder and terne metal in 1972 accounted for 4.8 percent of U.S. lead usage. (CX 19W, Table 13) Solder is made from alloyed lead, usually containing tin, or sometimes antimony. (Lospinoso 887, 889; Prengaman 1034; Bers 1293) Terne metal is a lead tin alloy with a tin content of between 2 and 10 percent. (Prengaman 1033)

156. Bearing metals in 1972 accounted for 1.1 percent of U.S. lead usage. (CX 19W, Table 13) Such products are made from alloyed lead, mainly an alloy with antimony and tin. (Prengaman 1018)

157. Collapsible tubes, casting metals and foil in 1972 accounted for 1.1 percent of U.S. lead usage. (CX 19W, Table 13) These products are made from alloyed lead, specifically antimonial lead. (Lospinoso 891, 896; Prengaman 1025-26)

158. Type metal in 1972 accounted for 1.3 percent of U.S. lead usage. (CX 19W, Table 13) This product is made from alloyed lead, usually containing 10 percent antimony and 3 or 4 percent tin. (Lospinoso 898; Prengaman 1035)

159. Only soft lead is used to produce the following products: gasoline antiknock compounds; brass and bronze; caulking-lead; white lead; red lead and litharge; pigment color; miscellaneous chemicals; annealing, and galvanizing. (Prengaman 1014, 1020, 1024, 1037-38, 1041-44) Generally soft lead is sold for pipe, lead plating, and for traps and bends. (Prengaman 1028, 1045) Such uses of soft lead plus battery oxide production accounted for 54.8 percent of U.S. lead usage in 1972. (CX 19W, Table 13)

160. Primary and secondary lead are functionally interchangeable for most end uses. (Prengaman 1007-09, 1014-15, 1018, 1022-23, 1025-27, 1029, 1030-31, 1037, 1041-46)

161. Primary and secondary pure lead are generally competitive with one another for the same end uses. (Blair

83; Quenell 595; Ryan 687-88, 690; Cassara 1325-28, 1356-57)

162. Pure lead is traded on the London Metal Exchange (LME), the principal world market for lead trading. (Threlkeld 1426) The minimum standard of purity for lead deliverable on the LME is 99.97 percent. (RX 42A; RX 45A; Threlkeld 1445) Both primary lead and recycled lead have met this standard. (Kenkel 386; Threlkeld 1446-49; see also Ryan 690)

163. Primary and secondary alloyed lead, if made to conform to the same specifications, can also both be used for most end uses. (Kenkel 393, 399; Craig 422; Ryan 695; Lospinoso 817-19)

164. Battery grids and posts constitute the largest end use for alloyed lead. (RX 80; RX 81) Most grids and posts have been made from secondary antimonial lead. (Warrender 122; Ray 167-68; Kenny 241-43) However, at least one primary producer, ASARCO, has made and sold some antimonial lead for use in battery grids. (Lospinoso 817-19) The primary producers compete to some extent with recyclers in the production and sale of antimonial lead for other end uses. (Kenkel 393, 399; Craig 422, 484; Ryan 694-95; Lospinoso 817-19; Bers 1255)

165. Some customers have historically preferred or specified only primary lead for certain end uses, although the incidence of this preference is declining due to improved analytical techniques and resulting higher purity of recycled soft lead. (Blair 86; Craig 425; Lospinoso 991) For example, as of 1971 and 1972, some oxide producers preferred to use primary lead in the manufacture of battery oxide. (Blair 86; Warrender 148-49; Mardick 287; Quenell 991) On the other hand, ESB will not approve the use of more than 25 percent primary lead in the production of its requirements of antimonial lead. (Kenny 240-41)

166. At identical prices, some battery manufacturers would always buy primary lead for use in making oxide. (Mardick 287) Indeed, for many soft lead uses, if the price of primary and secondary is identical, users will purchase only primary lead. (Mardick 288-89)

167. However, some secondary soft lead is used in the manufacture of battery oxides. (Ray 184, 206-07; Quenell 524; Lospinoso 747; Cassara 1327) Some secondary soft lead is also currently used in the production of tetraethyl lead (TEL). (Blair 81-82; Kenny 257; Quenell 594; Lospinoso 716, 816; Bers 1238-39, 1241-42; Cassara 1325-26)

168. For certain uses customers purchase only primary lead, as secondary lead is not suitable for manufacture of some products. (Blair 87; Kenny 247) For example, primary lead must be used in the manufacture of certain lead chromate pigments and other lead chemicals, because the presence of certain trace impurities in secondary lead would adversely affect the quality of the product. (Blair 87; Bers 1257) NL's paint, oxide, industrial and chemical division refused a request by its secondary lead division to alter specifications to permit the use of secondary as well as primary lead. (Mardick 288-89)

169. Prices of secondary lead and primary lead are not identical. (Mardick 287, 320-32)

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170. Lead prices are published each week in an industry publication known as Metals Week. This published price is based on the prices of the primary lead producers. (Mardick 321; Craig 481; Cassara 1420) There is no separate published list price for secondary lead. (Craig 481; Cassara 1420) The published price of lead is not necessarily the price of secondary lead (Mardick 321), but the price of secondary lead is related to the price of primary lead. (Kenkel 370-72; Cassara 1420)

171. Both primary and secondary sellers discount from published prices. (Mardick 325; Craig 470-71; Quenell 601; Cassara 1348-49) However, secondary producers tend to discount more than primary producers. (Mardick 325; Cassara 1401)

172. Generally, under normal market conditions, secondary soft lead will sell at a lower price than primary lead. (Mardick 287, 325; Bers 1294) Such price differential normally is around 10 percent. (Mardick 322)

173. An RSR internal analyses of lead markets at the time of the acquisition states as follows:

> Prices are set by reference to the daily quoted rate for lead on the U.S. Producer Lead market (which, in turn, reflects lead prices on the London Exchange), with secondary (scrap recovery) suppliers usually selling at a discount from the U.S. Producer Lead Market price as a reflection of the lower costs typically incurred in recovering lead from secondary sources as distinct from the mining and processing of primary lead. (CX 22B)

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174. Prices of both primary and secondary soft lead vary over short periods of time. (Craig 469; Bers 1289-91) In addition, the price differential between secondary and primary lead fluctuates. (Mardick 287-88, 321; Bers 1289-91)

175. The secondary lead market is an appropriate product market for the purposes of this proceeding.

V. The Relevant Geographic Market

176. The relevant geographic market for the purposes of this proceeding is the United States as a whole.

A. The U.S. Lead Market

177. In 1972 and subsequently, there was a national market for lead. (See Answer, as amended 7/2/74, Par. 15)

178. The lead-producing mines in the United States are concentrated in Missouri and the Rocky Mountain States. (Blair 34; Trozzo 1530; RX 72) The major primary lead producers—St. Joe, ASARCO, Bunker Hill and AMAX—have located their smelters and refineries close to their sources of raw materials. (Blair 34; Mardick 295-96; Trozzo 1531-32; RX 74; RSR's Answer to Third Request For Admissions 30)

179. Because of economies of rail carload transportation and favorable in-transit rates (F. 183, 184), the primary producers can ship their lead on a regular basis to almost any part of the United States by rail. (Craig 430, 466-67; Lospinoso 846-47; Bers 1256, 1260, 1296-97; Cassara 1330-34, 1367)

180. NL Industries, Inc. ("NL"), the largest producer of secondary lead, also ships lead throughout the nation from its plants dispersed in various areas of the nation. (F. 186) NL and the four largest primary producers accounted for 54.4 percent of 1972 shipments of lead in the U.S. lead market. (CX 64A-C, *in camera*)

B. The Secondary Lead Market

181. Because of high truck transportation costs incurred in bringing scrap in as well as in shipping lead out, lead recycling is conducted essentially on a regional basis. The capacity of a recycling facility is limited by the amount of scrap it can regularly acquire within a few hundred miles of its location. (Lospinoso 770-71, 845-46, 986-88; Bers 1244; Cassara 1327) Given this restriction on the output of their facilities, and the cost of transportation incurred in two directions, recyclers cannot profitably ship their lead, on a regular basis, to customers located more than a few hundred miles from their recycling plants. (Blair 79; Craig 467; Quenell 520-21, 579; Lospinoso 839, 845-56, 851-51A; Bers 1253, 1256, 1292; Barber 2100-04, 2106-08, 2113, 2117-19; Cassara 1329-31)

182. Since the primary lead producers are able to produce in large volumes at a single location, they are generally able to ship most of their lead by rail in carload quantities. (Lospinoso 846-47; Cassara 1359; Barger 2067, *in camera,* 2100, *in camera,* 2199) Because of the limitations on a recycler's plant capacity and the need to collect scrap, recyclers are dependent on truck transportation for most of their shipments. (Lospinoso 770, 839-40; Bers 1300-01; Cassara 1359; Barber 2100, *in camera,* 2185-86, 2200; Herald 2381; RX 31, *in camera*) Secondary lead processors use trucks both for shipping lead out of the plant and for supplying lead scrap to the plant. Trucks are routed so that a truck making a delivery to a customer can also carry lead scrap on its return trip. (Barber 2108-09, 2200) For example, RSR uses the backhaul method almost exclusively to supply its plants. Its fleet of trucks deliver lead to customers and then pick up lead scrap at a nearby scrap yard for return to the plant. (Lospinoso 770-72) Recyclers do not ship in sufficient time-unit quantities to make shipping by rail a feasible alternative for the bulk of their shipments. (Barber 2200)

183. The cost of shipping lead by rail in carload quantities is substantially less than the cost of shipping lead by truck for any distance exceeding 500 miles. (RX 27; Lospinoso 845; Trozzo 1548; Barber 2105-06).

184. The primary lead producers are able to ship by rail at rates even lower than the standard carload rates, because they take advantage of special in-transit rates. (Cassara 1330; Barber 2183-85, 2193; see also Bers 1296-97) One such rate, called "milling-in-transit", provides the shipper's customers with considerable freight savings in the movement of their lead products. (Cassara 1330-31) A Chicago oxide producer, for example, can buy pure lead from a primary producer in Missouri; the lead can be shipped from Missouri to Chicago, converted into oxide, and then shipped out to an oxide-consuming plant in Memphis, Tennessee. (Cassara 1333) The only freight paid on the shipment from Chicago to Memphis will be a very nominal payment representing the difference between a through rate and an intermediate stop rate. (Cassara 1333-34) The freight from

Chicago to Memphis would be far greater if the oxide producer were to purchase the lead from a recycler in the Chicago area; he would then have to pay the full going rate on the subsequent shipment of oxide to Memphis. (Cassara 1334)

185. With the aid of favorable rail carload and in-transit rates, the primary producers can ship their lead on a regular basis to almost any part of the United States. (Craig 430, 466-67; Lospinoso 846-47; Bers 1256, 1260; Cassara 1330, 1367; Barber 2066-67, *in camera*; RX 31, *in camera*) Because of their dependence on truck transportation, recyclers are much more limited in their sales areas, and do not ship their lead, on a regular basis, to customers located more than a few hundred miles from their recycling plants. (Craig 47-69; Quenell 509; Lospinoso 845-46, 851-51A; Bers 1256; Cassara 1329-31, 1357-59; Barber 2100-04, *in camera*, 2106-08, 2117-19; RX 29; RX 31, *in camera*; CXs 69-79, *in camera*) The average length of haul for one of the smaller primary producers in 1971 and 1972 was three times the average length of haul for RSR and Quemetco in that period. (Barber 2100-04, *in camera*; RX 31, *in camera*)

186. In 1971 and 1972, NL sold lead throughout the nation from nine recycling plants located across the country. (Mardick 271-72; Cassara 1366)

187. NL obtains "national" contracts with the major battery manufacturers. NL's sales staff meets with the purchasing agents of these manufacturers and negotiates sales to all or most of their plants. (Bers 1261-62; Mardick 2317, 2328-31)

188. In 1971 and 1972, ASARCO's Federated Metals Division (Federated) had secondary lead smelting and refining plants in New Jersey, Texas, Indiana and California and a fabricating plant in New Jersey. It sold tin-lead alloys, tin-lead-antimony alloys and fabricated products on a national basis, but did not sell significant quantities of antimonial lead to lead-acid battery manufacturers. (Kenkel 362-63, 378, 380)

189. Smaller secondary smelting operations, including Quemetco and RSR, competed with NL and Federated for sales within regional areas. (Ray 186-88; Mardick 278, 304, 2333-36; Kenkel 362-63; Quenell 530) Many battery manufacturers maintain more than one source of supply for lead for each of their manufacturing plants, and smaller recyclers can and do compete successfully with NL for contracts for specific plant locations. (Ray 186, 188; Mardick 304, 2309-12, 2334-36; Cassara 1344, 1346, 1348) However, only NL could serve all plant locations of multiplant battery manufacturers; other recyclers would serve only plants located in certain areas. (Cassara 1366-68)

190. In 1971 and 1972, Quemetco made most of its sales of secondary lead in the seven states surrounding its three plants.

191. In 1971, more than 59 percent of Quemetco's total shipments of recycled lead were made to customers within the State of California; more than 75 percent were made to customers within the Pacific Coast States of California,

Oregon and Washington.[5] (RX 29B; see also Quenell 509, 520-21)

192. In the first 10 months of 1972, 58.9 percent of Quemetco's total shipments of recycled lead were made to customers within the State of California; more than 80 percent were made to customers within the Pacific Coast States of California, Oregon and Washington. (RX 29B; see also Quenell 509, 520-21)

[5] RX 29B provides the following breakdown of Quemetco's total shipments of smelted and refined lead in 1971 and the first 10 months of 1972:

State	1971 (Tons)	% of Total	First 10 Mos. 1972 (Tons)	% of Total
California	23,705.7	59.17	21,267.4	58.95
Oregon	3,826.4	9.55	4,205.9	11.66
Washington	3,621.7	9.04	4,019.6	11.14
Indiana	5,388.1	13.45	3,975.1	11.02
Kentucky	1,233.3	3.08	903.4	2.50
Illinois	852.4	2.13	628.2	1.74
Ohio	348.0	0.87	624.7	1.73
Idaho	401.0	1.00	125.7	0.35
Iowa	—	—	104.4	0.29
North Carolina	127.3	0.32	83.2	0.23
Michigan	315.5	0.79	79.8	0.22
Nevada	—	—	29.9	0.08
Pennsylvania	73.3	0.18	10.5	0.03
Arizona	0.3	0.00	0.5	0.00
New Mexico	0.3	0.00	0.5	0.00
Hawaii	41.7	0.10	—	—
Missouri	122.8	0.31	—	—
Colorado	4.2	0.01	—	—
Unknown	—	—	1.4	0.00
Mexico	4.8	0.01	17.0	0.05
Canada	1.5	0.00	—	—
Total	40,068.3	100.01	36,077.2	99.99

193. In both 1971 and the first 10 months of 1972, more than 80 percent of Quemetco's total shipments of recycled lead were made to customers within California, Washington and Indiana, the three states in which Quemetco's plants were located. (RX 29B) According to Mr. Quenell: "Our actual deliveries of products were made in the midwest and on the Pacific coast. Only rarely would we deliver outside of those areas, and that would be upon request, if they had some difficulty." (Quenell 521; see also Quenell 509, 520-21)

194. In both 1971 and the first 10 months of 1972, more than 99 percent of Quemetco's total shipments of recycled lead were made to customers within 11 states, the 3 in which its plants were located (California, Washington and Indiana) and 8 others immediately adjacent to those 3 (Oregon, Kentucky, Illinois, Ohio, Idaho, Michigan, Nevada and Arizona). RX 29B, G, H; see also Quenell 580-82)

195. In 1971, Quemetco shipped recycled lead to customers within a total of 16 states; of those 16, only 7 (California, Oregon, Washington, Indiana, Kentucky, Illinois and Idaho) received as much as 1 percent of Quemetco's total shipments that year. (RX 29B, G; see Hatten 1148-49) In the first 10 months of 1972, Quemetco shipped recycled lead to customers within a total of 15 states; of those 15, only 7 (California, Oregon, Washington, Indiana, Kentucky, Illinois and Ohio) received as much as 1 percent of Quemetco's total shipments in that period. (RX 29B, H; see also Hatten 1149-50; Quenell 580-81)

196. Quemetco's salesmen were instructed that the company's sales policy was to solicit sales where they would

yield the most profit. Because of the high cost of shipping lead, this policy generally resulted in soliciting prospective customers located as near as possible to each of Quemetco's plants, except where competitive sales practices permitted freight to be charged to the customer. (Mardick 313; Kenkel 384; Quenell 520-21, 581; see Hatten 1166; Bers 1256; Cassara 1329-30)

197. Consistent with that policy, Quemetco did not solicit sales of recycled lead for shipment to customers located in the Middle Atlantic, Southeastern and South Central areas of the country, solicited sales in New England only for the prospective output of the Wallkill plant, and seldom actually shipped lead to those areas, in 1971 and the first 10 months of 1972. (Quenell 581-85)

198. Consumers of lead are dispersed throughout the United States. There were 45 states in which lead was consumed in 1971 and 1972. (CX 16K, Table 15; CX 19X, Table 16.)[6] Quemetco's shipments were limited to 16 states,

[6] CX 16K, Table 15, and CX 19X, Table 16, provide the following breakdown of total U.S. lead consumption, in short tons, in 1971 and 1972:

State	1971	% of Total	1972	% of Total
California	128,062	8.95	137,018	9.23
Colorado	4,113	0.29	4,452	0.30
Connecticut	26,942	1.88	22,001	1.48
District of Columbia	129	0.01	114	0.01
Florida	11,190	0.78	14,853	1.00
Georgia	71,878	5.02	76,672	5.16
Illinois	155,265	10.85	154,594	10.41
Indiana	136,885	9.56	150,803	10.15
Kansas	24,142	1.69	21,402	1.44
Kentucky	20,311	1.42	18,416	1.24

or only one more than a third of the states in which lead was consumed, in 1971. Quemetco's shipments were limited to 15 states, or exactly one-third of the states in which lead was consumed, in the first 10 months of 1972. Quemetco's shipments in significant quantities (1 percent or more of its total shipments) were limited to seven states, or less than one-sixth of the states in which lead was consumed, in both 1971 and the first 10 months of 1972. (F. 195)

199. RSR's shipments of lead were also largely concentrated in the states surrounding its plants. In 1971, 41.8

State	1971	% of Total	1972	% of Total
Maryland	22,797	1.59	15,416	1.04
Massachusetts	3,278	0.23	3,321	0.22
Michigan	37,055	2.59	35,643	2.40
Missouri	45,934	3.21	44,456	2.99
Nebraska	8,253	0.58	6,629	0.45
New Jersey	155,216	10.84	162,773	10.96
New York	57,098	3.99	57,536	3.87
Ohio	18,761	1.31	26,062	1.75
Pennsylvania	120,842	8.44	109,528	7.37
Rhode Island	1,545	0.11	2,048	0.14
Tennessee	16,567	1.16	25,771	1.74
Virginia	4,187	0.29	4,253	0.29
Washington	13,870	0.97	16,157	1.09
West Virginia	20,963	1.46	17,879	1.20
Wisconsin	12,675	0.89	13,967	0.94
Alabama and Mississippi	7,538	0.53	10,813	0.73
Arkansas and Oklahoma	8,701	0.61	9,143	0.62
Hawaii and Oregon	6,950	0.49	12,905	0.87
Iowa and Minnesota	16,547	1.16	21,057	1.42
Louisiana and Texas	244,267	17.06	252,269	16.98
Montana and Idaho	692	0.05	697	0.05
New Hampshire, Maine, Vermont, Delaware	19,831	1.39	25,647	1.73
North and South Carolina	8,996	0.63	10,924	0.74
Utah, Nevada, Arizona	34	0.00	35	0.00
Total	1,431,514	100.03	1,485,254	100.01

percent of RSR's total lead shipments were made to customers within the State of Texas; approximately 52 percent were made to customers within the three Southwestern States of Texas, Oklahoma and Louisiana. (RX 29C; Hatten 1145-46).[7]

200. In the first 10 months of 1972, approximately 37 percent of RSR's total lead shipments were made to customers within the State of Texas; 44 percent were made to customers within the three Southwestern States of

[7] RX 29C provides the following breakdown of RSR's total lead shipments in 1971 and the first 10 months of 1972:

State	1971 (Tons)	% of Total	First 10 Mos. 1972 (Tons)	% of Total
Texas	31,469.2	41.80	27,614.1	37.02
Pennsylvania	2,177.6	2.89	10,151.2	13.61
Indiana	6,279.7	8.34	6,809.6	9.13
Maryland	12,979.0	17.24	4,717.8	6.33
New York	3,475.9	4.62	3,714.7	4.98
Oklahoma	3,780.4	5.02	3,591.9	4.82
Illinois	93.4	0.12	3,208.4	4.30
Missouri	1,005.0	1.33	2,990.2	4.01
New Jersey	3,010.3	4.00	2,422.2	3.25
Kansas	2,975.0	3.95	2,358.4	3.16
Connecticut	1,201.5	1.60	2,339.2	3.14
Louisiana	4,094.2	5.44	1,792.9	2.40
Georgia	1,040.9	1.38	1,554.5	2.08
Arkansas			427.1	0.57
Arizona	23.7	0.03	266.9	0.36
Iowa	861.2	1.14	138.3	0.19
Tennessee	93.0	0.12	135.8	0.18
Massachusetts	93.9	0.12	100.7	0.14
Rhode Island	131.8	0.18	100.5	0.13
Michigan	499.1	0.66		
Ohio	7.6	0.01		
Puerto Rico			149.1	0.20
Total	75,292.4	99.99	74,583.5	100.00

Texas, Oklahoma and Louisiana. (RX 29C; Hatten 1145-46)

201. In 1971, approximately 30 percent of RSR's total lead shipments were made to customers within the seven Northeastern States of New York, New Jersey, Pennsylvania, Maryland, Connecticut, Massachusetts and Rhode Island. (RX 29C, I) In the first 10 months of 1972, approximately 31 percent of RSR's lead shipments were made to customers within those same seven states. (RX 29C, J)

202. Thus, in 1971, about 82 percent of RSR's lead shipments were made to customers within the 10 states surrounding its two plants; in the first 10 months of 1972, about 75 percent of its shipments were made to customers within those states. (F. 199-201)

203. In 1971, approximately 18 percent of RSR's lead shipments were made to states other than those identified above; in the first 10 months of 1972, approximately 24 percent of its shipments were made to states other than those identified above. (RX 29C, I, J) The state receiving by far the greatest portion of these relatively long distance shipments in both 1971 and 1972 was Indiana, a state then experiencing extremely rapid growth in lead demand and consumption. (CX 16K, Table 15; CX 19X, Table 16; Barber 2132-33)

204. RSR made no shipments to California, Oregon or Washington in 1971 or the first 10 months of 1972. (RX 29C)

205. RSR's policy is, and was in 1971 and 1972, to ship its lead to customers as close to its plants as possible.

(Hatten 1165-66) Most of RSR's shipments are made within 450 miles or less of its plants. (Lospinoso 776-77; RX 115B)

206. In 1971, there were only seven states that received lead shipments from both RSR and Quemetco. Of those seven, only one (Indiana) received as much as 1 percent of each company's total shipments of lead in that year. (RX 29D, K)

207. In the first 10 months of 1972, there were only five states that received lead shipments from both RSR and Quemetco. Of these five, only two—Indiana and Illinois—received as much as 1 percent of each company's total shipments of lead in that period. (RX 29D, L)

208. In some circumstances, in order to accommodate customer requests or emergencies, secondary smelters will ship recycled lead long distances ranging over 1,000 miles. (CX 69A-E-79A-E, *in camera*; Mardick 311; Quenell 522, 533-34, 593-94; Lospinoso 777-78; Bers 1274-75) The normal distance shipped by secondary producers depends on their profit margin, with a larger margin enabling shipments to be made to more distant customers. (Craig 439, 464-65; Quenell 534)

209. Schuylkill Products ships some 60 percent-antimonial lead throughout the United States from its plant in Louisiana. It is purchased primarily by other secondary smelters who use it to raise the antimony content of their lead. (Bers 1274-75)

210. ESR purchased secondary lead for its Puerto Rico plant from NL's and RSR's New Jersey smelters. (Kenny 246-47) Furthermore, ESR shipped back to these New Jersey smelters its scrap batteries from Puerto Rico. (Kenny 247) An Atlanta secondary lead smelter, Seitzinger, shipped some lead into New England. (Mardick 311) Quemetco shipped secondary lead from Seattle to Los Angeles. (Quenell 594) Schuylkill obtains TEL slag from Wilmington, Delaware, ships it to Baton Rouge, Louisiana, smelts and refines the lead and ships some of the lead back to Wilmington. (Bers 1279-80)

211. Another factor determining the distance secondary lead is shipped is the advantage to be gained by assuring an emergency supply to distant plans of a customer who purchases for his closer locations. (Cassara 1370-71) As stated by Mr. Quenell:

> Consequently when approaching a National [sic] company with plants in other parts of the country where we did not have manufacturing plants we found it necessary to assure them that in the event they were deprived of supply that we would undertake to supply them regardless of their location. (Quenell 522)

The witness added, however, "Fortunately, we were never called on to do very much of that." (*Id.*)

212. RSR made shipments from its Dallas facility to customers located closer to its Newark facility because, "they [Dallas] were filling in what the Newark smelter could not fill." (Hatten 1201) For example, RSR generally sold lead to Nassau Smelting in New York from its Newark

smelter but, because it could only make calcium lead at Dallas, RSR shipped the calcium lead desired by Nassau Smelting from Dallas. (Hatten 1205-06) High antimonial lead was also shipped to Delco's New Brunswick, New Jersey battery plant from RSR's Dallas plant because its Newark plant could not make such lead. (Hatten 1204-05)

213. A further factor determining the distance a secondary lead smelter is willing to ship is the presence of excess capacity. (Quenell 534; Bers 1306) A secondary lead smelter with excess capacity "can afford to ship a greater distance rather than to shut down his plant because the extra sales absorb part of his overhead." (Quenell 534)

214. Generally, a larger secondary plant such as RSR's Dallas plant can ship longer distances because of its economies of scale in production. (Craig 439) RSR's Dallas smelter could and did ship to New York, New Jersey and into the Midwestern states in which Quemetco's Indianapolis plant made shipments. (CX 75A-B, *in camera*; Craig 439; Quenell 533; Lospinoso 778; Hatten 1199, 1201, 1203-05) In 1972, RSR was "shipping about 18,000 tons per year of lead into the Midwest in order to maintain a market position." (CX 22I) About 13.4 percent of RSR's lead shipments from the Dallas plant in the first 10 months of 1972 went to the States of Indiana and Illinois, a distance of about 850 miles from Dallas.

215. Long distance shipments are not a regular practice for secondary smelters; most of their sales are made to customers located within a few hundred miles of their

plants. (Mardick 313; Craig 467-69, Quenell 546; Lospinoso 839, 851-5[illegible]A; Bers 1253, 1256; Cassara 1258-59, 1329-31; F. 181, 185)

216. One witness noted the general rule for determining the distance a firm ships recycled lead as follows:

> [T]here is a rule of thumb the more you can sell close to you, the better off you are if those customers will keep buying from you over a period of time. So you have a nexus, a center of your business and stretch out when you have to and contract when you can. (Craig 466; see Quenell 581, 593-94)

217. The average length of haul for all Quemetco shipments in 1971 and the first 10 months of 1972 was less than [see *In Camera* Findings] miles. (RX 31, *in camera*; CXs 69-71, *in camera*; Barber 2087, 2103-04, *in camera*) The average shipments of Quemetco's Seattle, Indianapolis and City of Industry plants were [see *In Camera* Findings] miles, respectively, in 1971 and [see *In Camera* Findings] miles, respectively, for the first 10 months of 1972. (*Id.*)

218. The average length of haul for all of RSR's shipments was less than [see *In Camera* Findings] miles in 1971 and less than [see *In Camera* Findings] miles in the first 10 months of 1972. (RX 31, *in camera*; CXs 75-77, 79, *in camera*; Barber 2087, 2103-04, *in camera*) The average distance of RSR shipments from its Dallas plant was [see *In Camera* Findings] miles in 1971 and [see *In Camera* Findings] miles in the first 10 months of 1972; the average distance of shipments from its Newark plant was [see *In Camera* Findings] miles in 1971 and [see *In Camera* Findings] miles in the first 10 months of 1972. (*Id.*)

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219. The nation's largest manufacturers of lead-acid storage batteries, Delco-Remy, ESB, Globe Union, Gould, Prestolite, and General Battery Corporation (Ray 164-65), manufacture batteries, and thus consume lead, at plants dispersed throughout the United States. (RX 33A-B; RX 34; RX 144S, U, W, Z-1, Z-3, Z-5; RX 145) The battery industry accounted for about 50 percent of total U.S. lead consumption in 1971 and 1972. (RXs 80-81; RX 145D)

220. In 1972, there were no manufacturers of lead-acid storage batteries located in the States of Idaho, Montana, Wyoming, North Dakota, South Dakota, Nevada, Utah, New Hampshire or Alaska. (CX 21C-G, *in camera*; Quenell 531-32) Only to a limited extent were batteries manufactured or assembled in the States of Alaska, New York, Maryland, Arizona, New Mexico, Rhode Island, Maine, Massachusetts, West Virginia, Hawaii and Nebraska. (CX 21C-G, *in camera*; Quenell 531-33)

221. The six largest U.S. battery companies relied on at least two secondary lead producers as suppliers, including both single plant and multiplant firms, with no single supplier serving all locations. (Warrender 123-24; Ray 185-88; Kenny 242-43; Cassara 1344, 1383; Mardick 2333-35, 2341) Many of such companies as a matter of purchasing policy sought to have multiple sources of supply of secondary lead. (Ray 185-86; Kenny 243; Cassara 1346, 1348, 1409-10; Mardick 2327)

222. In 1972, both RSR and Quemetco made substantial sales to the major battery manufacturers. (CX 64F-H, *in camera*; CX 65D-E, G, K-L, *in camera*) However, neither

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company sold to all plant locations in the United States. (Cassara 1366-67)

223. [See *In Camera* Findings]

224. [See *In Camera* Findings]

225. In 1971 and 1972, only five battery plants received lead shipments from both RSR and Quemetco. (RX 29E)

226. In 1972, Quemetco made sales from existing plants or expected to make sales from its Wallkill plant in states whose lead consumption represented 70 percent of total U.S. consumption. (CX 19X, Table 16; CX 69A-B, *in camera*; CX 70A-B, *in camera*; CX 71A, *in camera*) In 1972, RSR made sales in states whose lead consumption represented 80 percent of total U.S. consumption. (CX 19X, Table 16; CX 75A-B, *in camera*; CX 76A, *in camera*)

227. Within 300 miles of Quemetco's four plants, including Wallkill, lie 22 states which represented 78 percent of total U.S. lead consumption in 1972. (CX 19X, Table 16) Within 800 miles of RSR's plants, the approximate distance to which it shipped 13.4 percent of the Dallas smelter's production in the first 10 months of 1972, lie states which accounted for 87.5 percent of total U.S. lead consumption in 1972. (CX 19X, Table 16)

228. The record does not show the geographic distribution of secondary lead consumption.

229. There is one national published price for lead, but that price does not necessarily reflect the actual price of secondary pure or antimonial lead in a specific locality.

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(Cassara 1416-17) The record does not show that prices for recycled lead are uniform throughout the nation. It appears rather that prices reflect regional variation, but that prices in adjoining regions affect one another. (Bers 1361; Cassara 1419) A high demand area, for example, will attract lead shipments from adjoining areas if the price rises high enough to compensate more distant producers for additional freight charges. (Bers 1303-04)

230. The price of lead scrap and scrap batteries varies in different sections of the country and smelters compete for scrap on a regional basis. There is no uniform national price for scrap. (Mardick 1305) Recyclers compete with one another within an area of 200 to 300 miles from their plants. (Bers 1245) Price levels for lead scrap in one area may affect prices in another area, but recyclers rarely go beyond their surrounding area to purchase scrap. (Bers 1246, 1303)

231. Prior to the acquisition, Quemetco had begun construction of two new secondary smelting and refining plants, one to replace its existing plant in Indianapolis and a new facility in Wallkill, New York intended to serve customers within a radius of 250 to 300 miles. (F. 25, 26; Quenell 546) At the time of acquisition, neither plant was completed, but both were about to begin production. (F. 26; Blair 61-62) The plants were part of a program to expand the geographic base of Quemetco's manufacturing facilities. (Quenell 498, 537)

232. RSR was also considering expansion of its recycling operations. The company stated that a portion of the proceeds of a stock offering might be used as follows:

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> The balance may be used to pay for feasibility studies and applied toward acquisition or construction costs of a third plant at a location not yet selected and, to the extent not so used, will be added to the Company's working capital. However, there is no assurance that feasibility studies will justify the acquisition or construction of an additional plant. (CX 25D)

233. RSR had considered construction of a battery wrecking facility, a secondary lead refinery or a secondary lead smelter in the Midwest. (Hatten 1198-99)

234. In July of 1972, RSR conducted a "Plant Site Survey Analysis" for a Midwestern location. (CX 21A-U, *in camera*) This study included a consideration of the cost of constructing a battery wrecker and refinery. (CX 21L-M, *in camera*) Included in a study was a listing of the locations of secondary lead smelters throughout the United States. (CX 21B, *in camera*) The preliminary findings of the study indicated that a facility in the location considered would be unprofitable. (Hatten 1198) After the acquisition of Quemetco, RSR ceased further consideration of the Midwestern facility. (Hatten 1224-25)

235. RSR acquired Quemetco because it wanted to become a significant competitor in the lead industry over a broader geographic area. (Craig 437) The acquisition of Quemetco provided RSR with the multiplant network needed to compete for national sales contracts with primary producers and with NL, the largest supplier of secondary lead. RSR can now ship recycled lead throughout most of the nation. (Bers 1264-66; Cassara 1366-68; Barber 2138)

VI. Structure of the Industry

A. Sources of Lead

236. Lead sold in the United States comes from the following sources: primary smelters, secondary smelters, imports of primary lead and drawdowns of the government stockpile (GSA stockpile). (CX 25E; Craig 426-27, 431-32)

237. The disposal of the lead contained in the GSA stockpile has been made through releases to the primary lead producers, with the one-time exception in 1974 of a release made to lead users as well as to the primary producers. (Blair 59; see Craig 432)

238. In 1970, only 12,117 tons of lead were released from the GSA stockpile while in 1971, that figure decreased to 10,010 tons. (Fifth Request For Admissions and Answer, Pars. 10-12)

239. Currently there is a little over 70,000 tons of lead available that could be released from the GSA stockpile. (Craig 432)

240. The GSA stockpile contains 460,000 tons of lead that is not authorized for sales. (Craig 432) Congressional action would be required before such lead could be sold. (Craig 432) It does not appear that release of that lead is imminent. (Craig 432)

241. Lead is a commodity which moves freely in international trade. In 1969, a year respondent's witness stated was representative in terms of lead demand, about one million tons of lead were exported from one country to another. That amount represented nearly 30 percent of total world consumption of lead in that year. (RX 91; Trozzo 1569, 1576; see also Threlkeld 1450-52)

242. The United States is a net importer of lead. (Compare RX 91 with RX 85 and RX 90.) Imports of lead pigs and bars into the United States have been in excess of 200,000 tons in every year but three since 1960, and ranged as high as 363,594 tons in 1967. However, imports of these products in the years 1971 through 1974 were only 195,587, 242,390, 178,096 and 118,359 short tons, respectively. (RX 85) The United States has also been a major importer of lead ores, concentrates and mattes; the import volume of these lead-bearing materials, in terms of lead content, has been between 66,000 and 148,000 tons every year since 1960. However, imports of these products in the years 1971 through 1974 were 65,998, 101,514, 102,483 and 94,406 short tons, respectively. (RX 90)

243. From 1971 through 1975, only small quantities of secondary lead were imported into the United States. (Blair 54; Warrender 128; Ray 184; Kenny 247; Mardick 301-02; Kenkel 373-74; Quenell 547-58)

244. The price barometer for the international lead trade is the going price for lead on the London Metal Exchange. (Threlkeld 1451-52; see also Craig 469) The U.S. price of soft lead is distinct from the international price. (CX 19C Table 1; Craig 480-81; Quenell 599; Cassara 1412-13) But while the U.S. price and the LME price are not identical, and are arrived at through different processes (Kenkel 392; Cassara 1412-13), the U.S. price

and the LME price tend to rise and fall along generally similar patterns. (Warrender 149; Kenkel 392; Threlkeld 1451-52; Trozzo 1786-87; see also Cassara 1339, 1374; Craig 469; RX 94)

B. The U.S. Lead Market

1. Market Universe and Shares

245. The sum of production, importation and drawdowns from the GSA stockpile of smelted and refined lead in the United States was 1,550,000 short tons in 1971 and 1,700,000 short tons in 1972. (CX 64A, *in camera*)

246. In 1971, the year prior to the acquisition, RSR accounted for [see *In Camera* Findings] percent and Quemetco accounted for [see *In Camera* Findings] percent of shipments in the U.S. lead market. (CX 64A-C, *in camera*)

247. For the year 1972, RSR, excluding the acquired Quemetco plants, accounted for [see *In Camera* Findings] percent and Quemetco accounted for [see *In Camera* Findings] percent of shipments in the U.S. lead market. (CX 64A-C, *in camera*)

248. For the year 1972, on a pro forma basis, RSR and Quemetco combined accounted for [see *In Camera* Findings] percent of overall lead shipments. (CX 64A-C, *in camera*)

249. These market shares are understated to the extent that the production capacity of the new Wallkill and Indianapolis smelters are not included in the data. (See F. 259, 260)

2. Market Concentration[8]

250. In 1971, the year prior to the acquisition, the top four firms in the overall U.S. lead market accounted for 53.84 percent and the top eight firms accounted for 70.39 percent of total lead shipments. (CX 64A-C, *in camera*)

251. Concentration decreased slightly in 1972, without regard to the acquisition, with the top four firms accounting for 50.22 percent and the top eight firms accounting for 68.56 percent of that year's total shipments of lead in the U.S. lead market. (CX 64A-C, *in camera*)

252. For 1972, taken on a pro forma basis to account for the acquisition of Quemetco, concentration in the U.S. lead market remained 68.56 percent for the top eight firms and decreased to 47.65 percent for the top four firms. (CX 64A-C, *in camera*)

253. The three largest producers of smelted and refined lead in 1971 and 1972—NL, ASARCO and St. Joe—produced comparable amounts of smelted and refined lead in those years. The fourth and fifth largest producers of smelted and refined lead in 1971 and 1972—AMAX and Bunker Hill—produced comparable amounts of smelted and refined lead in those years, and the amounts they produced were about two-thirds the amounts that were produced by the three largest producers in those years. (Trozzo 1748; CX 64A-C, *in camera*)

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[8] The sales of Federated Metals Division have been included in the market share of ASARCO, and Quemetco's sales have been included in the market share of St. Joe, its parent company.

254. RSR was the sixth largest producer of smelted and refined lead in 1971 and 1972. It produced less than half the amount produced by the fifth largest producer in 1971; about 40 percent less than the amount produced by the fifth largest producer in 1972; and about one-third the amount produced by each of the three largest producers in each of those years. (CX 64A-C, *in camera*)

C. The Secondary Lead Market

1. Market Universe and Shares

255. The total shipments of smelted and refined lead derived from scrap materials in the United States was 596,797 short tons in 1971 and 616,597 short tons in 1972. (CX 64A, *in camera*)

256. In 1971, RSR accounted for [see *In Camera* Findings] percent and Quemetco accounted for [see *In Camera* Findings] percent of U.S. secondary lead shipments. (CX 64A-C, *in camera*)

257. In 1972, RSR, excluding the acquired Quemetco plants, accounted for [see *In Camera* Findings] percent and Quemetco for [see *In Camera* Findings] percent of total yearly secondary lead shipments. (CX 64A-C, *in camera*)

258. In 1972, on a pro forma basis, RSR and Quemetco combined accounted for [see *In Camera* Findings] percent of the total secondary lead shipments for that year. (CX 64A-C, *in camera*)

259. Included in RSR's acquisition of Quemetco were two secondary lead smelters in Indianapolis, Indiana and Wall-

kill, New York which were nearing completion at the time of acquisition. Because these facilities were not completed until late in 1972, the production capacity and market control which they gave to RSR are not reflected in the 1972 data. (F. 25-26)

260. The new Wallkill and Indianapolis smelters were both designed to produce between 30,000-36,000 tons of lead per year. While the Indianapolis facility was constructed to replace an existing Quemetco smelter, it (the new smelter) was designed to have a greater productive capacity for secondary lead. (CX 22H; F. 25-26)

261. In 1971 and 1972, RSR was the nation's second largest producer of secondary lead. It produced about one-fourth the amount produced by NL, the largest producer of secondary lead, in 1971, and about one-third the amount produced by NL in 1972. (CX 64, *in camera*)

262. In 1972, RSR and Quemetco combined produced about 53 percent of the amount of secondary lead produced in that year by NL. (CX 64, *in camera*)

2. Market Concentration

263. In 1971, the year prior to Quemetco's acquisition by RSR, the secondary lead market was very highly concentrated, with the top four firms accounting for 64.43 percent and the top eight firms accounting for 79.81 percent of total shipments. (CX 64A-C, *in camera*)

264. By 1972, the year of the acquisition, that already high concentration had increased, prior to the acquisition,

to 65.40 percent for the top four firms and 81.41 percent for the top eight firms. (CX 64A-C, *in camera*)

265. As a result of the combination of RSR and Quemetco, the 1972 concentration ratios jumped to 72.41 percent pro forma for the top four firms and 83.77 percent pro forma for the top eight firms. (CX 64A-C, *in camera*)

266. Concentration in the production and sale of secondary lead has been increased through mergers and acquisitions.

267. RSR's present market position was largely achieved through acquisitions. In 1971, RSR acquired Murph Metals, a much larger secondary lead smelter. (CX 25E) RSR's principal enhancement of its market position occurred in 1972 with its acquisition of Quemetco's four secondary smelters, including one about to begin operation.

268. Prior to its acquisition by RSR, Quemetco itself had grown due in part to acquisition. In 1969, Quemetco acquired the Pacific Division of Bunker Hill Company, consisting of a secondary lead smelting operation and oxide manufacturing facilities located at Seattle, Washington. (CX 15; Blair 19-20)

269. Likewise, NL, the largest supplier of secondary lead, has enhanced its position in the market through acquisitions. (Answer To Third Request For Admissions, Par. 23) NL acquired a secondary lead smelter in Detroit from Prestolite. (F. 281) NL also has acquired Continental Smelting Company and Goldsmith, two formerly indepen-

dent secondary lead smelters with plants located in Chicago. (Quenell 650-61)

D. Market Entrants and Exits

270. The record does not reflect the total number of secondary smelters existing in the United States. An employee of the United States Bureau of Mines estimated that there are about 100 secondary smelting plants in the United States, many under common ownership. (Ryan 636-38) Fifteen companies owning 41 plants comprise about 93 percent of the total production of secondary lead reported to the Bureau of Mines. (Ryan 638-39)

271. Several companies have begun to smelt and refine secondary lead in the United States in the past several years. East Penn Manufacturing Company entered by building a smelter and refinery in Lyon Station, Pennsylvania, in 1971. (Ray 221; Kenny 261; Mardick 314-15; Quenell 555) Tonolli Co., a Canadian company, entered by building a smelting and refining facility in Scranton, Pennsylvania, in 1975. (Kenny 262; Mardick 310) Conrex entered by building a smelter and refinery in Georgia in 1971. (Ray 219; Mardick 314) In addition, firms already engaged in primary and secondary lead production have built new plants to expand their operations. Interstate Smelting expanded by building another facility in Pedricktown, New Jersey, in 1973. (Kenny 262) Conrex expanded by building another facility in Mississippi in 1973. (Ray 219-26; Mardick 314) Gould expanded by building another facility in Farmer's Branch, Texas, in the early 1970's. (Ray 221; Kenny 261; Mardick 315; Kenkel 396; Quenell 555) General

Battery built a new facility in Reading, Pennsylvania, in 1973. (Warrender 152; Ray 220; Kenny 261; Kenkel 395; Quenell 553) St. Joe doubled the capacity of its Herculaneum plant in approximately 1969. (Craig 414) NL Industries recently announced plans to double its capacity by 1980 and to triple it by 1988, a plan involving construction of six new plants and the modernization and expansion of three others. (RX 145-50)

272. A number of firms have also exited from the U.S. lead market. The record does not reflect the relative impacts on competition in the lead industry of these entrances and exits. U.S. lead consumption has grown at a low rate over the past several years; the compounded rate of growth has been about one percent per year since 1950. (Trozzo 1645; RX 80)

273. Anaconda recently exited from the primary lead business. (Craig 427-28)

274. Major battery producers have accounted for many exits from the U.S. secondary lead market.

275. In 1964, Globe-Union formed a joint venture with Quemetco (then Western Lead Products Co.) to engage in the production of secondary lead and lead oxide at Indianapolis, Indiana. (CX 23A; Warrender 130-31; Quenell 497)

276. Globe-Union reasoned that entry into secondary lead smelting was "the next logical step", as it already was into the oxide business to a limited degree. (Warrender 131) Globe-Union "didn't have the courage" to enter into

the secondary lead smelting alone, so they went in with persons who had the know-how to design and operate a smelter. (Warrender 131) Throughout the history of this joint venture, Quemetco managed the smelter. (CX 23D; Warrender 131-32; Quenell 519-20)

277. In 1967, Globe-Union sold its interest in the secondary lead joint venture to Quemetco, because the joint venture was unprofitable. (CX 23B-D; Warrender 132; Quenell 497-98)

278. Prestolite Division of Eltra Corporation, a major battery producer (hereinafter "Prestolite"), entered into secondary lead smelting in 1961 through the acquisition of a small independent secondary lead smelter located in Detroit, Michigan. (Ray 164-65, 196, 219)

279. Prestolite purchased this secondary lead smelter because:

> I had heard opinions it was beneficial for a battery manufacturer to purchase that type of integration and I had heard opinion that it was not and I felt that some way we had to find out whether this was or was not beneficial.
>
> The Detroit smelter offered us an opportunity to do that. . . . (Ray 198)

280. Prestolite shipped the secondary antimonial lead, the sole product made at its smelter, to Ford Motor Company's Owosso, Michigan battery plant, and some to its own Niagara Falls, New York and Vincennes, Indiana plants. (Ray 197-98)

281. In October 1964, Prestolite sold its secondary lead smelter to NL. (Ray 196, 198, 203, 219; Mardick 316) Subsequently NL closed this smelter. (Ray 219; Mardick 316)

282. Prestolite's reasons for the sale of its secondary smelter were as follows:

> . . . It subsequently developed that in my judgment, the smelter operation was taking a disproportionate share of my time and the time of all our key staff people in relationship to the profits that were being generated by the smelter and I felt that, number one, we were not learned enough in secondary lead smelting to be in the business. I felt that we were learned and astute enough in the buying of scrap batteries and felt that I had found out what I wanted to find out and basically this was not our cup of tea. (Ray 200)

283. ESB operated a single secondary lead smelter in Philadelphia, Pennsylvania for many years prior to 1971. (Kenny 247-48; Bers 1271; Cassara 1327, 1373) ESB closed its secondary lead smelter in 1971 because of problems of compliance with environmental regulations. (Cassara 1387)

284. Lippincott, a battery producer, formerly operated a secondary lead smelter, first located in Nevada and then moved to Ontario, California. (Quenell 560) In approximately 1962, Lippincott ceased its secondary lead smelting activity. (Quenell 560) Douglass Battery Company, a battery company located in the Carolinas, had a secondary lead smelter but has closed it. (Quenell 563) Western Battery, formerly a Denver, Colorado battery manufacturer, built a

secondary lead smelter in the late 1960's. (Quenell 562) Both Western Battery's smelter and its battery operation are now out of business. (Quenell 562)

285. There have been numerous exits from the U.S. secondary lead market through acquisition of one secondary producer by another.

286. In 1956-57, Bers Smelting, a Philadelphia secondary lead smelter, acquired Metro Smelting Company, also an independent Philadelphia smelter which produced some secondary lead. (Bers 1312)

287. In the 1950's, General Battery Company, then an operator of a secondary lead smelter, purchased Price Battery Company, also an operator of a secondary lead smelter. (Warrender 157; Quenell 553-54; Bers 1249-50, 1270) In 1973, General Battery built a single new smelter to replace both its original smelter and that one formerly operated by Price Battery Co. (Warrender 152, 157; Ray 220, 235; Quenell 553-54; Bers 1270-71) In 1974, General Battery Company purchased Dixie Lead Company, which formerly was an independent firm operating two secondary lead smelters, one in Dallas, Texas and the other in Louisiana. (Warrender 152; Ray 220, 236; Craig 474; Quenell 554) The Dallas smelter, however, has not operated since early 1974. (Quenell 554)

288. In the early to mid-1960's, Gould Inc. purchased an independent secondary lead smelter in Omaha, Nebraska, marking Gould's entry into secondary lead production. (Warrender 153, 158; Ray 221; Mardick 315; Quenell 556;

Bers 1288) In 1969, Gould Inc. purchased Bers Company, then an independent secondary lead smelter located in Philadelphia, Pennsylvania. (Warrender 153; Ray 221, 235-36; Mardick 315; Quenell 557; Bers 1239-40) Gould Inc.'s smelter in Philadelphia has been shut down except for some refining. (Mardick 315; Quenell 557; Bers 1284) NL smelted the lead being refined by Gould in Philadelphia. (Quenell 557; Bers 1287)

289. In 1974, Memphis Lead, a single plant secondary lead smelter, acquired another secondary lead smelter, Florida Smelting Company. (Kenny 242-43; Quenell 563; Norman 2346)

290. A further source of exits from the U.S. secondary lead market has been the "obsolescence of smaller, older technically nonsophisticated smelters." (CX 22H) Among such exits from the smelting of secondary lead have been: Houston Lead Products (Quenell 561); Eastern Smelting and Refining, an independent Los Angeles, California secondary lead producer (Quenell 560); National Smelting, an independent Fort Worth, Texas secondary lead smelter (Quenell 561); International Lead, an independent San Francisco, California secondary lead producer (Quenell 559); and Reliance Smelting, an independent Newark, New Jersey secondary lead smelter (Quenell 561-62).

291. Increasingly stringent environmental and occupational safety and health standards have led to, and are likely to continue to lead to, the closing of small, older plants producing lead where the cost of installing emission control equipment and providing safer working environments cannot be justified. (Answer to Third Request For Admissions, Par. 25) Many of the plants which smelt and refine secondary lead in the United States were built in the 1930's. (Revised Answer to Fifth Request For Admissions, Par. 2) To bring an established secondary lead smelter and refinery with an annual capacity of approximately 15,000 short tons into overall compliance with applicable anti-pollution and worker safety standards can require a capital investment of $3 million or more. (Revised Answer to Fifth Request For Admissions, Par. 3)

E. Potential Entrants

292. Battery manufacturers are the largest consumers of lead and they are, therefore, important potential entrants into the secondary lead industry. (Warrender 150; Kenny 260; Bers 1259) Ray Kenny, Director of Material Planning and Purchases for ESB Inc., testified that ESB continually evaluates the possibilities of entering the lead business and would do so if it became economically attractive. (Kenny 260) Four battery manufacturers—Gould, General Battery, East Penn and Conrex—have already entered the industry. (Ray 219-21; Kenny 261-62; Mardick 314-15; Quenell 553-55)

293. Several major battery manufacturers, including Globe-Union, Prestolite and ESB, were at one time engaged in secondary lead production, and have since discontinued their recycling operations. (F. 274-284)

294. Globe-Union's management until at least late 1973 did not and would not consider reentry into secondary lead smelting because, in the words of its then chief executive,

"I didn't think we had the skill nor the manpower." (Warrender 117, 132-33)

295. In response to an inquiry concerning Prestolite's possible future involvement in secondary lead smelting, the president of Prestolite stated:

> We do not have any plans and I would not anticipate that we would ever get back into secondary smelting. I would never propose it.
>
> • • •
>
> I don't believe it's the kind of business that we should get in to [sic]. (Ray 202)

296. ESB's Director of Material Planning and Purchases stated that "one of the prime reasons" a battery manufacturer would not enter the secondary lead market was that ". . . it is a completely new field to him. . . ." (Kenny 248)

297. General Motors' Delco-Remy Division, one of the largest U.S. battery producers, is not engaged in secondary lead smelting, but only operates a sweater to recover some of its internal scrap from manufacturing. (Mardick 308)

298. In RSR's judgment, vertical integration by large battery manufacturers "does not pose a major threat to RSR's markets or business." (CX 2B)

299. Attempts by a battery manufacturer to vertically integrate into smelting of secondary lead would be handicapped by the fact that smelting facilities would have to be located around the country in proximity to the manufacturer's battery plants. One plant could not service all of a

system of geographically dispersed manufacturing plants. (Mardick 307-08)

F. Barriers To Entry

300. The cost of erecting a lead smelter is substantial. (Kenkel 364; Cassara 1387) The investment required for newer lead-processing technology, including "secondary" lead-processing technology, has risen from October 26, 1972 to the present and RSR expects such costs to continue to rise in the future. (Answer to Third Request For Admissions, Par. 27; see Bers 1285-86)

301. A primary lead smelter would cost approximately $55 to $70 million to build. (Craig 414) Indeed, the doubling of the capacity of St. Joe Minerals' smelter to a 225,000 ton capacity cost $25 to $30 million. (Craig 414)

302. The cost of constructing a complete secondary lead production unit including oxide manufacturing facilities was approximately $4 to $7 million in 1972. (Answer to Second Request For Admissions, Par. 2; Third Request For Admissions and Answer, Par. 28; CX 25C-D, G; Blair 62-63; Mardick 272-73; Bers 1286) Today a 40,000 short ton capacity secondary lead plant would cost approximately $10 million to build. (Mardick 317)

303. The production of lead, specifically secondary lead, requires extensive quality control and the use of expensive quality control equipment. (CX 25E; Lospinoso 821; Prengaman 1048, 1052-57, 1107)

304. Entry into secondary lead smelting takes a considerable period of time. For instance, Tonolli Co., a Canadian

firm, seeking to enter into U.S. production from Canada, has had a secondary lead smelter under construction for three years. (Quenell 559; Bers 1283-84) In its attempt to enter, Tonolli has experienced construction, equipment and environmental problems. (Quenell 559)

305. Entry into primary smelting is especially difficult, even for a secondary smelter. (Cassara 1388)

306. There is no evidence in the record of absolute impediments or substantial long-term barriers to entry into lead smelting. There is no evidence, for example, of long-term exclusive contracts or patents on basic processes that potential entrants would be unable to obtain.

307. Multiplant lead recycling operations possess certain competitive advantages over single-plant operations. For example, a multiplant secondary lead processor can assist a multiplant battery manufacturer in adjusting imbalances in its scrap and lead inventories. (Warrender 125; Cassara 1364-66, 1410) A multiplant recycler can also offer battery manufacturers the assurance of supply provided by possession of "back-up" capacity. (Quenell 522; Cassara 1366, 1371; Norman 2351) It can continue supplying its customers' lead requirements despite a strike or a breakdown at any one of its facilities. (Mardick 2316-17) Assurance of supply is a matter of critical concern to battery manufacturers. (Cassara 1371)

308. A multiplant operation can achieve cost savings in areas such as production techniques, design engineering, environmental services, research and development, employing consultants, personnel training, corporate overhead,

and the purchasing of supplies and equipment. (Lospinoso 856-64; Hatten 1170-72; Norman 2354, 2356)

309. A multiplant firm can allocate corporate overhead expenses over a greater number of plants and a greater number of tons, thereby achieving lower unit costs. RSR now has a single staff for sales, a single staff for accounting, a single staff for data processing, serving all of the plants. (Hatten 1170-72)

310. RSR has achieved cost savings in purchasing supplies and equipment on a multiplant basis, particularly in the purchasing of coke, fuel, oxygen, teflon bags, and air and water pollution equipment. (Lospinoso 861, 969-71)

311. However, single plant operations are viable businesses, and compete effectively with larger secondary lead smelters. (Norman 2353; F. 189) Many major battery manufacturers purposefully maintain more than one source of supply for lead for each of their manufacturing plants, and single plant operation can compete successfully with multiplant operation for supply contracts. (F. 189; see Mardick 2307-12) In fact, a witness from NL testified that there is no competitive advantage in the possession of multiplant capacity alone, for contracts with national battery companies are awarded solely on the basis of price. (Mardick 2307)

G. Recent Industry Developments

1. Environmental and Worker Safety Laws

312. Lead is a toxic material, exposure to which is dangerous to workers or others. (Blair 24) In recent years,

environmental controls and worker health and safety regulations have increased costs in the lead industry. (Blair 71-74) Government regulations have required lead producers to install expensive air pollution equipment. (Blair 24; Mardick 308-09; Kenkel 369) Likewise, government regulations require control of emissions by lead producers into sewers or the soil, including control over the disposal of waste materials. (CX 25C, H; Blair 71; Quenell 509) Such regulations have become substantially more rigid over the period since 1970, and, due to the rising cost of pollution controls, these regulations have resulted in substantially increased costs and larger plant size. (Answer to Third Request For Admissions, Par. 26; CX 25C, H; Blair 71; Quenell 509; Lospinoso 865, 958) Prior to the acquisition of Quemetco by RSR, new environment controls were rapidly outmoding many older, smaller plants of the secondary lead suppliers (Third Request For Admissions and Answer, Par. 1), and many additional secondary lead smelters have become nonviable due to the increased capital expenditures necessary to meet environmental requirements. (Mardick 316; Quenell 558; Lospinoso 961) The installation of safety equipment by lead smelters is also mandatory under OSHA standards, promulgated under the 1970 Occupational Safety and Health Act. (Blair 73-74) These standards have become increasingly stringent in recent years. (Blair 73-74)

313. NL has concluded that "[w]ith the enormous nonproductive investment required to meet environmental restrictions, only very large plants become economical in terms of unit and capital costs per ton." (RX 144N) Thus, the new plants that it is planning to build in an expansion program will have capacities three to six times that of the

average recycling plant today. (RX 142A; RX 144N; RX 145I, N) The plants will be built with a new "closed system" that will "meet all existing and future standards with respect to worker safety and health and environmental protection", which "means no interruption of supply to bettry [sic] customers because of environmental problems." (RX 144Z-6)

2. Calcium Lead "Maintenance-Free" Batteries

314. In recent years, some battery manufacturers have begun to use calcium lead rather than antimonial lead in the manufacture of battery grids and posts. (Blair 50-51; Ray 208; Craig 432-33)

315. Calcium lead is an alloy of lead and calcium, often also containing tin. (Blair 50; Mardick 298; Craig 432; Quenell 548; Lospinoso 752-53, 866-67) Generally the alloy contains less than 1 percent calcium. (Mardick 298; Lospinoso 752)

316. Calcium lead is currently made predominantly from primary lead, but secondary lead can be used as well. (Blair 51-52; Lospinoso 953; Prengaman 1009, 1013, 1072)

317. Calcium lead alloys have long been used. (Blair 53; Kenkel 375) Calcium lead is one form of hard lead that is used in the manufacturing of anodes, pipe and cable coverings as well as to a limited extent in the manufacture of battery grids. (Blair 50; Mardick 298; Kenkel 375; Quenell 548; Lospinoso 753; Prengaman 1022)

318. Batteries having calcium lead grids have been in use for over 10 years. (Warrender 133-34) However, their

use was limited to nonautomotive applications until recently, due to the relatively high cost of producing such batteries, the difficulties encountered in calcium lead grid production and the problems of the service life of the batteries themselves. (Blair 53; Warrender 133-36; Ray 229-31; Kenny 252; Mardick 298; Prengaman 1082, 1118-19)

319. Calcium lead provides many important advantages over antimonial lead as a battery alloy. It produces a battery with increased hydrogen overvoltage, so that very little if any gas is generated; there is no need to add water (with attendant impurities which impede battery performance); and the battery can be sealed. (Blair 53; Lospinoso 865-66; Prengaman 1064-65; Bender 1677) Sealing permits the battery to be installed in a place other than under the hood, where the high temperatures reduce battery life; the battery can be shipped in any position without dry-charging, which is an extra cost in battery manufacturing. (Lospinoso 865-66; Prengaman 1066) The battery is less susceptible to corrosion and self-discharge (Prengaman 1067-69; Bender 1677-78); there is greater resistance to vibration, and the battery as a whole can be smaller and lighter (Bender 1677); the service life is increased. (Lospinoso 866; Bender 1677-78)

320. Battery manufacturers using calcium lead to produce grids for "maintenance free" batteries often use antimonial lead or a lead-tin alloy containing cadmium for the other parts of such batteries that require hard lead. (Ray 208-09; Mardick 300-01; Prengaman 1062, 1114)

321. St. Joe and NL are currently producing small quantities of calcium lead (Mardick 299; Craig 433-34),

and calcium lead batteries are being produced by Delco-Remy Division of General Motors Corporation, by Prestolite and by Gould. (Ray 209, 224, 225; Bender 1666-67; RX 160A, B) ESB has had a calcium lead battery on the "drawing boards" for about five years, and has the capability to produce such a battery, though it has not done so to date. (Kenny 251) However, calcium lead batteries currently account for only a very small percentage of U.S. battery production. (Warrender 139; Ray 224; Craig 432-34; Lospinoso 953-54; Prengaman 1078, 1111) RSR has developed the capability to produce calcium lead and is seeking orders for that product from battery manufacturers. (Lospinoso 953; Prengaman 1013)

322. Only one major battery manufacturer is heavily committed to producing calcium lead batteries. The Delco-Remy Division of General Motors Corporation first installed a prototype of the calcium lead, maintenance-free battery, called the "C-89" battery, as standard equipment on the Pontiac Gran Prix, and it later became available as an option on some Buicks, Olds and Pontiacs (Bender 1689-90); over 100,000 C-89 batteries were sold (Bender 1727-28). Delco is now producing a calcium lead maintenance-free battery known as the "Freedom" battery. (Bender 1667; RX 160A-B)

323. The Freedom battery is now being used as original equipment in several 1976 car lines. General Motors is currently producing about 6,000 cars per day with the calcium lead battery installed as original equipment. (Bender 1702)

324. Delco-Remy is currently advertising and promoting the Freedom battery for use as a replacement battery, and is selling these batteries to J. C. Penney. (Bender 1703-05)

325. Delco-Remy is also producing a calcium lead maintenance-free battery known as the "Delco 1200" battery, for trucks and tractors. (Bender 1681; RX 37) All of the major truck manufacturers have purchased some Delco 1200 batteries and are installing them on a special order basis. (Bender 1687-88)

326. [See *In Camera* Findings]

327. Prestolite is promoting a calcium lead maintenance-free battery known as the "Liberator" battery. (Ray 209, 224; RXs 1-2) Prestolite began producing the Liberator battery about three years ago (Ray 224), and has made a substantial investment in its development. (Ray 227-28, *in camera*) However, the Liberator battery makes up only a small part of Prestolite's total production. (Ray 224)

328. Increased production of calcium lead batteries by Delco will probably accelerate the production of similar batteries by other manufacturers and thus accelerate the use of calcium lead on an industrywide basis. (Blair 83-84; Warrender 144) However, even if Delco switches to calcium lead batteries as a large percentage of its production, the effect of calcium lead batteries on the recycled lead market would be small. (Kenkel 384)

329. While calcium lead is gaining in use as a grid alloy, there is wide disagreement among members of the

lead and battery industries as to the extent to which it will replace antimonial lead in the manufacture of automotive batteries. (Blair 50; Ray 224) Some battery manufacturers and lead recyclers believe that calcium lead will become a significant factor in the market. (Ray 224-25; Craig 432-33) Others, however, are of the opinion that difficulties in the manufacturing of calcium lead batteries, including the fact that calcium is so readily oxidized that the product must be produced in an inert atmosphere or in a vacuum, and that calcium alloy is difficult to cast, weld and fuse (Blair 52-53), and the fact that calcium lead batteries will probably be more expensive than antimonial lead batteries (Kenny 252), will impede widespread acceptance and use of calcium lead, and that it will not replace antimonial lead in the production of batteries in the foreseeable future. (Blair 50; Ray 225; Kenny 251)

330. RSR's in-house expert on calcium lead grid batteries estimated that such batteries would account for only about 20 percent of battery production in 5 years and could not estimate when such batteries would account for as much as 50 percent of battery production, stating that "it is pure speculation" as to what share of the market such batteries would have in the future. (Prengaman 1112-14)

331. Some battery manufacturers are developing a low antimonial lead battery which would be competitive with the calcium lead battery as a low maintenance battery. (Craig 433; Quenell 548-49, 551-52)

332. The lead contained in calcium lead batteries is recoverable by secondary smelters. (Blair 51; Warrender 137; Mardick 299; Kenkel 376; Craig 432; Lospinoso 867)

333. The lead recovered by a blast furnace from calcium lead batteries would contain any tin or other alloying metal found in the original alloy but would not contain the calcium. (Blair 51-52; Kenkel 376) Thus, in order for a secondary lead smelter to produce calcium lead, calcium has to be added back, probably from a specially prepared calcium concentrate or "king metal". (Blair 52; Warrender 137)

334. Secondary lead smelters have the ability to produce calcium lead. (Blair 52; Mardick 299) RSR, NL, and the Federated Metals Division of ASARCO, are producing, and for some time have been producing, secondary calcium lead. (Mardick 298; Kenkel 386; Lospinoso 856; Prengaman 1030-31; Hatten 1203-04)

335. Even if calcium lead batteries become the only type of automotive batteries, the secondary lead industry would continue to exist. (Blair 54; Warrender 137-38; Ray 229; Mardick 299; Quenell 549-50) The nation's overall need for lead can only be met practically by the production of secondary lead. (Blair 54-55; Quenell 594-50; Lospinoso 981-82) Even if all batteries were made with calcium lead grids, millions of scrap batteries would be generated each year, thereby necessitating their disposal. (Warrender 138-39; Kenkel 370-71; Quenell 550) Each scrap battery contains a significant amount of recoverable lead. (Quenell 550) Thus, the same marketing process is likely to be

followed for calcium lead batteries as for antimonial lead batteries, with the battery companies accumulating the scrap, selling or sending it to a secondary smelter for reprocessing and getting back lead for grids (calcium lead) and maybe some oxide. (Blair 55-56; Warrender 139; Quenell 549-50; see Kenkel 370-71) The largest producer of calcium lead batteries, GM's Delco-Remy Division, is already negotiating with RSR for its supply of calcium lead, negotiations which RSR believes will soon result in its becoming Delco's supplier. (Prengaman 1013)

VII. Effects of the Acquisition

A. U.S. Lead Market

336. RSR's acquisition of Quemetco did not eliminate substantial actual competition between the two firms in the U.S. lead market. (F. 246-248, 190-195, 199-204)

337. RSR's acquisition of Quemetco did not significantly increase concentration in the United States lead market. (F. 250-252)

B. Secondary Lead Market

338. RSR's acquisition of Quemetco eliminated substantial actual competition between the two firms in the secondary lead market. (F. 339-340)

339. In 1971 and 1972, the bulk of Quemetco's sales of recycled lead were made in the States of California, Oregon and Washington. (F. 191, 192) Substantial sales were also made in the Midwestern States of Indiana, Kentucky, Illinois and Ohio. (F. 191, 194) RSR, in the same years,

made the bulk of its sales in the Southwestern States of Texas, Oklahoma and Louisiana, and the Northeastern States of New York, New Jersey, Pennsylvania, Maryland, Connecticut, Massachusetts and Rhode Island. (F. 199-201) However, RSR also made substantial sales in the Midwestern States of Indiana, Illinois, Missouri and Kansas. (F. 199)

340. Immeditaely prior to the acquisition, RSR was shipping about 18,000 tons per year of lead into Midwest markets in order to maintain a market position there. After the acquisition, RSR planned to ship part of this production to other geographic markets, and to transfer 6-8,000 tons of its current Midwestern sales to Quemetco's Indianapolis plant. (CX 22I)

341. The acquisition significantly increased concentration in the secondary lead industry. (F. 263-265)

342. Immediately prior to the acquisition, RSR had a secondary lead smelter located in Newark, New Jersey which was being forced to relocate. (CX 25B, G; Craig 437-38; Lospinoso 961; Herald 2365)

343. Prior to acquiring Quemetco, RSR planned to replace this Newark facility with another secondary lead smelter located in the New York-New Jersey area, with a planned capacity of 24,000 short tons per annum, a substantial addition to its former plant's capacity. (CX 10B-C; CX 13D; CX 25B; Lospinoso 961) The replacement facility was estimated for completion in September 1973. (CX 25G)

344. At the time immediately prior to its acquisition, Quemetco was establishing a new secondary lead facility in the New York and New Jersey area. (F. 26) At this time, Quemetco sought future sales of secondary alloyed lead and lead oxide from its soon to be completed Wallkill plant. (Quenell 527, 581-83, 585-86) Globe-Union had plans to purchase antimonial lead from Quemetco's Wallkill plant prior to the acquisition of that plant by RSR. (Warrender 140; Quenell 527-28) Likewise, Quemetco had commitments from Delco-Remy, ESB and Prestolite for secondary lead to be delivered from its soon to be opened Wallkill, New York smelter. (Quenell 527-28) Such commitments represented the total planned production of secondary lead by Quemetco's Wallkill facility. (Quenell 527-28)

345. At the time of the acquisition, the Wallkill plant had its equipment installed and had commenced production of oxides and was in the final testing stage prior to beginning of smelting and refining operations within a month. (F. 26)

346. The acquisition of Quemetco and its Wallkill facility obviated the need for RSR to build a new secondary smelter to replace its Newark plant. (CX 6D; CX 7B; Craig 437-38; Quenell 542; Lospinoso 964; Herald 2370)

347. RSR partially equipped its newly acquired Wallkill plant with equipment, including test equipment and a blast furnace, taken from its Newark smelter. (Lospinoso 964) The key personnel from the Newark smelter were transferred by RSR to the Wallkill smelter. (Lospinoso 965) In December 1972, RSR closed its Newark smelter

(CX 6D; Lospinoso 967) and shifted its Newark customers to the Wallkill smelter. (CX 22H)

348. The acquisition of Quemetco strengthened RSR's position in the secondary lead market. (F. 349-351)

349. RSR, after the acquisition, instituted contractual arrangements for the supply of its lead, whereas only very seldom had such arrangements existed previously between RSR and its customers or Quemetco and its customers. (Ray 189; Quenell 515-18)

350. RSR's post-acquisition supply contracts had a 2-year term and committed buyers to purchase specified tonnages of lead. (Ray 189; Quenell 516) These contracts covered each of the buyers' plants and provided specific price terms. (Ray 189-90) Absent such a contract, RSR charged 2 cents a pound more for its secondary lead. (Quenell 516) Prior to the acquisition, neither RSR nor Quemetco had any commitments for the purchase of specific tonnages nor did they have fixed future price terms. Prestolite does not have such a contract with any other suppliers. RSR's new supply contracts limited its customers' flexibility to purchase or negotiate with other suppliers. (Ray 190-95)

351. Immediately subsequent to the acquisition of Quemetco, ESB had two 1-year contracts, one with RSR and the other with Quemetco. These were "tolling" (conversion) contracts. After the expiration of its initial post-acquisition contracts with RSR, ESB entered into a straight "purchase" contract with RSR. ESB preferred

the tolling contracts as they enabled it to "purchase our material more economically." ESB felt its bargaining position was unfavorably altered because of the elimination of Quemetco as a supplier. (Kenny 254-56)

352. Mr. Quenell, former president of Quemetco, testified that a reasonable price for the acquired plants would be $1 million for the Los Angeles plant, and $2.5 to $3 million each for the Indianapolis plant and the Los Angeles plant. He testified that it might not be possible to sell the Seattle plant. (Quenell 572-74)

353. As of the end of 1974, RSR had about $22 million of long-term debt, $38 million of total liabilities, and a net worth of about $9 million. Assuming that the acquired plants are sold for $10 million, the divestiture sale would result in a loss of about $12 million, giving RSR a negative net worth of about $3 million, causing it to be in default of all of its current loans. (Hatten 1176, 1192, 1197)

Discussion

A. Introduction

This proceeding involves Section 7 legality of the 1972 acquisition of Quemetco, the fifth-ranking lead-scrap recycler, by RSR, the second-ranking lead-scrap recycler in the United States. The acquisition effected a combination of Quemetco, essentially a regional seller of recycled lead alloys (principally antimonial lead) and some lead oxides in the West and the Midwest, and RSR, essentially a regional seller of recycled lead alloys (principally antimonial lead) in the Southeast, Northeast and a portion of the Midwest. After the acquisition, the RSR-Quemetco

combination became a national seller of recycled lead and lead alloys (principally antimonial lead), but remained a distant second to NL Industries, Inc., the largest national seller of recycled lead and lead alloys in the United States.

Complaint counsel's theory of violation is essentially that the challenged acquisition eliminated the substantial actual competition which had existed between two national sellers of recycled lead and significantly increased the concentration in the lead-scrap recycling industry on a national basis. Complaint counsel also allege similar anticompetitive effects in the overall "U.S. lead market", comprising the primary and secondary lead producers, on a national basis.

Respondent's defense is twofold. First, it disputes the validity of the secondary lead market. It argues that "lead is lead" regardless of the raw material source because of complete functional interchangeability between primary and secondary lead. In the overall lead market, which is national in scope, it is argued, the challenged acquisition is procompetitive because, by combining two small firms, it enabled the resulting firm to offer new competition to the leading industry giants.

Second, respondent argues that, if the secondary lead market were a valid Section 7 product market, the geographic market relevant to this proceeding cannot, as a matter of law, be larger than the area to which Quemetco, the acquired firm, shipped lead to a significant degree. Respondent also argues that there is no national market for secondary lead because the transportation characteristics of recycled lead effectively limit the area to which recycled lead may be economically shipped. Thus, the area of effective competition is regional. Finally, respondent argues that the acquisition is procompetitive because it gave respondent multiplant capability and enabled respondent to compete with the "dominant" firm (NL Industries) in the recycled lead market on a national basis for the first time.

On the basis of the record evidence as a whole, I have determined that recycled lead (or secondary lead) is a valid product market for the purposes of this case based on well recognized practical indicia which are economically significant, such as unique production facilities, peculiar use patterns, distinct vendors, distinct prices, and historic recognition of the lead-scrap recycling operation as an economically significant and separate activity. It is also my determination that, although there may be valid regional markets in the lead-scrap recycling industry, the effect of the challenged acquisition may also be examined in terms of a national market in this proceeding because (1) the leader in the secondary lead market (NL Industries) sold nationally, (2) RSR acquired Quemetco concededly in order to become a national seller, and (3) after the acquisition, respondent sold nationally in competition with other national sellers. I have concluded that, in the U.S. secondary lead market, the challenged acquisition eliminated substantial actual competition between the two firms and significantly increased concentration in violation of Section 7. The principal arguments of the parties and the reasons for my determinations are discussed in greater detail in the following pages.

B. The Product Market

The complaint alleges two separate product markets: (1) the U.S. lead market, consisting of primary lead and secondary (or recycled) lead, and (2) the U.S. secondary

lead market, consisting of recycled lead. The parties agree that the U.S. lead market is an appropriate product market for the purposes of this proceeding. However, there is a sharp disagreement with respect to the U.S. secondary lead market, more specifically as to whether recycled lead is an appropriate submarket under the *Brown Shoe* guidelines. *Brown Shoe Co.* v. *United States*, 370 U.S. 294, 325 (1962). That guideline states in part:

> . . . The boundaries of such a submarket may be determined by examining industry or public recognition of the submarket as a separate economic entity, the product's peculiar characteristics and uses, unique production facilities, distinct customers, distinct prices, sensitivity to price changes and specialized vendors. . . .

And if there is a reasonable probability that the merger will substantially lessen competition in any economically significant submarket, the merger is proscribed. *Id.* It is my opinion that the record as a whole clearly demonstrates that recycled lead is a valid submarket in terms of a number of practical, economically significant indicia, including unique production facilities, use patterns, distinct prices, specialized vendors and industry recognition.

First, the raw material for primary lead plants are lead-bearing ores and concentrates. The raw material for recycling plants is lead-bearing scrap, primarily scrap lead-acid type batteries. The evidence shows that the production facilities employed in the scrap recycling operation are substantially different from those employed in the smelting and refining of ores and concentrates. The scale of pro-

duction facilities in scrap recycling operation is markedly smaller than that of a primary plant. (F. 63) Because of radically different plant sizes and capacities, different scale economies and costs apply to a primary plant and a secondary plant. (F. 59-62, 64-65) Furthermore, the ore preparation and sintering processes, important in a primary operation, are absent in a secondary operation. (F. 72-74, 80) Also, primary plants are located in or near the Lead-Belt States of Missouri and the Rocky Mountain States, while recycling plants are scattered in the various population centers of the country. (F. 68-69, 178) Perhaps most important, the normal output of a primary smelter is radically different from that of a recycling plant. While the normal output of a secondary smelter consists of about 70 percent antimonial lead (hard lead) and about 30 percent soft lead, the normal output of a primary smelter consists of soft lead. (F. 114, 115) In order to produce hard lead, including antimonial lead, a primary smelter must further process its soft lead output by adding the requisite amounts of antimony or other hardening elements. And this is an expensive process. (F. 116, 118-119)

Second, the normal use patterns of primary plant output are radically different from those of a recycling plant output. The record shows that the bulk of antimonial lead output of a recycling plant is sold, without further processing, to automotive battery manufacturers of the nation and is fabricated into battery grids and posts. (F. 133-135) The bulk of soft lead output of a recycling plant is used by the recycler to produce lead oxide, which is sold to battery manufacturers for use as battery oxide, or fabricated into various lead products, such as wheel weights, ammunition, tubes, dies, solder and type metal. (F. 136, 145) Little re-

cycled soft lead is sold in the open market. (F. 146) On the other hand, a lion's share of the soft lead output of a primary smelter goes to battery manufacturers for the production of lead oxides and to producers of chemicals, mostly TEL, for use as gasoline antiknock additives; the remainder is further processed into pigments, or into lead alloys for fabrication of various metal products. (F. 137, 150, 159) Very little primary soft lead is processed into antimonial lead and sold to battery manufacturers for use as battery grids and posts. (F. 116, 164) As is evident from the foregoing discussion, the bulk of a recycling plant output has been sold historically to battery manufacturers, either as antimonial lead or as soft lead. The output of a primary smelter (soft lead) is sold to diverse customer groups, including battery manufacturers, with or without further processing.

The record also shows that fabricators of lead products have historically preferred primary lead or recycled lead, as the case may be, on the basis of different physical characteristics of each type of lead and intended end use of the lead, although such preference appears to have decreased somewhat as improved analytical techniques have resulted in higher purity of recycled soft lead. (F. 155)

Third, recycled lead is of course sold only by scrap recyclers, a distinct vendor group. (F. 44-49) Fourth, the lead-bearing scrap recycling industry (the secondary lead industry) has historically been recognized as a separate and significant economic activity. (F. 39-43) And, there is evidence tending to show that there is a significant price differential between primary lead and recycled lead, normally amounting to 10 percent. (F. 169-172)

Finally, and most important, these distinctions discussed above are not mere theoretical differences; they are practical distinctions which have important economic significance to both the producer and the user. Therefore, there is no room for any serious dispute that recycled lead is a valid submarket which constitutes a product market for Section 7 purposes. In view of the overwhelming evidence discussed above, respondent's argument that lead is lead, that primary lead and secondary lead are functionally interchangeable *when processed to meet particular product specifications* for the various uses, falls far short of the mark.

C. The Geographic Market

There is a sharp dispute between the parties with respect to the appropriate geographic market in which the effect of the challenged acquisition should be assessed. It is well settled that the criteria to be used in determining the appropriate geographic market are essentially similar to those used to determine the relevant product market. *Brown Shoe Co.* v. *United States, supra,* at 336. Thus, although the geographic market may be as large as the nation as a whole or as small as a single metropolitan area, the market selected in all cases must "both 'correspond to the commercial realities' of the industry and be economically significant", and not "formal" or "legalistic". *Id.* at 336-337. The area chosen must be "an area of effective competition", that is, an area "in which the seller operates, and to which the purchaser can practicably turn for supplies." *Tampa Electric Co.* v. *Nashville Coal Co.,* 365 U.S. 320, 327 (1961); *United States* v. *Philadelphia National Bank,* 374 U.S. 321, 359 (1963). The fact that the merging firms competed di-

rectly in but a fraction of the geographic markets in which either operated, does not, in itself, place the merger beyond the scope of Section 7, for that section speaks of "any" section of the country, and if anticompetitive effects are probable in any significant market, the merger, at least to that extent, is proscribed. *Brown Shoe Co.* v. *United States, supra,* at 337. And, the appropriate "section of the country" and the "relevant geographic market" are the same. *United States* v. *Marine Bancorporation,* 418 U.S. 602, 623 (1974); *United States* v. *Connecticut National Bank,* 418 U.S. 656, 672, 673 (1974).

It is also well recognized that high transportation costs and the factor of inconvenience effectively localize competition in some industries. See, *e.g., United States* v. *Philadelphia National Bank, supra,* at 358-359; *Luria Bros. & Co.* v. *FTC,* 389 F.2d 847 (3d Cir.), *cert. denied,* 393 U.S. 829 (1968); *Erie Sand & Gravel Co.* v. *FTC,* 291 F.2d 279 (3d Cir. 1961); *American Crystal Sugar Co.* v. *Cuban-American Sugar Co.,* 259 F.2d 524 (2d Cir. 1958); *ITT Continental Baking Co.,* 3 Trade Reg. Rep. ¶20,783 (F.T.C. 1974). And, it is equally well established that, depending on the patterns of trade and competition faced by the merging firms, a national market may exist in addition to distinct regional or local markets. *United States* v. *Bethlehem Steel Corp.,* 168 F. Supp. 576 (S.D.N.Y. 1958); *United States* v. *Grinnell Corp.,* 384 U.S. 563 (1966); *Kennecott Copper Corp.,* 78 F.T.C. 913 (1971), *aff'd, Kennecott Copper Corp.* v. *FTC,* 467 F.2d 67 (10th Cir. 1972), *cert. denied,* 416 U.S. 909 (1974); *British Oxygen Co.,* 3 Trade Reg. Rep. ¶21,063 (F.T.C. 1975).

Turning to the case at hand, the evidence clearly shows that lead scrap recyclers used trucks almost exclusively,

not only to obtain the raw material (lead scrap) but also to ship their finished products (recycled lead). Normally, truck runs were scheduled and routed, to the extent possible, in such a way that a truck would leave a recycling plant with a load of hard lead, make deliveries to a battery plant and pick up a load of scrap batteries and return to the home plant. (F. 182) Thus, it is clear that truck transportation costs effectively localized competition to an area within which the scrap batteries and lead products could be economically shipped. And that area appears to have been normally within a few hundred mile radius from the plant. (F. 181, 185) The record also indicates that as the plant capacity increases, the distance over which recycled lead can be economically shipped also increases. For example, respondent regularly shipped substantial quantities of recycled lead from its Dallas plant to the States of Indiana and Illinois, some 800 miles distant. (RX 29C) Although shipments over longer distances were made on an accommodation basis or in emergencies from time to time, the record as a whole clearly shows that competition was effectively regionalized in the lead scrap recycling industry. For example, the record indicates substantial north-south movements of recycled lead over long distances (from the Southeast to the Northeast and the Midwest), but fails to show any movement of recycled lead across the Rockies in either direction. It appears that recycled lead produced in the West Coast States was consumed in the same region. From the foregoing, there can be no serious dispute that there are valid regional markets in the production and sale of recycled lead in the United States.

Complaint counsel argue that, in 1972, RSR and Quemetco "competed" with each other and with NL Industries

and the other secondary lead producers for sales to the same six major battery manufacturers and that this fact establishes a single, national market for the secondary lead industry. This argument, however, ignores the obvious fact that the battery manufacturers as a group constituted the principal customers for antimonial lead and that, therefore, all recyclers, both large and small, had to sell some lead to the major battery manufacturers in order to remain viable. In these circumstances, the central question for the purpose of delineating a geographic market is not whether the recyclers supplied antimonial lead to the same group of battery manufacturing *firms* but whether they sold to the same battery manufacturing *plants,* which are widely dispersed in the various regions of the country, in competition with each other. The record is clear that NL Industries was the only firm which had the capability to supply recycled lead to battery manufacturing plants pretty much throughout the country and that neither RSR nor Quemetco possessed that capability or did ship lead to battery plants across the country. (F. 189, 190-195, 199-204)

Complaint counsel further argue, on the basis of state consumption statistics for all lead (comprising primary and recycled lead) that RSR shipped recycled lead to those states which accounted for 80 percent in 1971 and 77 percent in 1972, and that those states within 800-mile radius of RSR's two plants accounted for some 87.5 percent of the total U.S. lead consumption in 1972. With respect to Quemetco, complaint counsel argue that, if Quemetco had completed its Wallkill, New York plant in 1972, it could have shipped secondary lead to those states which accounted for about 70 percent of the total U.S. lead consumption in that year. It is argued that, therefore, both RSR and Quemetco

were national sellers of recycled lead prior to the acquisition. Although it appears that both RSR and Quemetco shipped secondary lead into many of the states which accounted for a substantial percentage of total U.S. lead consumption, this evidence is insufficient to show that each of the two firms was a national seller of *secondary* lead at the time of the acquisition. Therefore, complaint counsel's argument that the preacquisition shipment patterns of the merging firms or the other recycled lead industry firms establish that the nation as a whole is a relevant geographic market in the production and sale of recycled lead is rejected. Finally, complaint counsel's argument that there is a price uniformity of recycled lead on a national basis is not supported by the record as a whole. The evidence complaint counsel rely on shows no more than a degree of regional interdependence and does not require a finding that the geographic market in the production and marketing of recycled lead is naticnal in scope.

However, apart from the preacquisition shipment patterns of RSR and Quemetco, the record evidence as a whole shows that the nation as a whole can be an appropriate geographic market for the purposes of this proceeding. First, NL Industries, Inc., the largest lead scrap recycler, for many years has maintained nine secondary smelters in various sections of the country and sold and competed on a national basis. (F. 186) Most notably, it has negotiated national supply contracts with battery manufacturers, covering the latter's battery manufacturing plants throughout the country. (F. 187) Perhaps most important, respondent asserts that an important purpose of its Quemetco acquisition was to acquire multiplant capability so that it could compete more effectively with other national sellers

of lead, including NL Industries, the leading lead-scrap recycler. And, it is clear that the challenged acquisition in fact enabled the RSR-Quemetco combination to sell and ship recycled lead pretty much on a national basis. In these circumstances, it is necessary and appropriate to examine the effect of the acquisition in the nation as a whole. This is in accord with both the legislative purposes of amended Section 7 and applicable precedents. See S. Rep. No. 1775, 81st Cong., 2d Sess. 6 (1950); *United States* v. *Bethlehem Steel Corp., supra; United States* v. *Grinnell Corp., supra; Kennecott Copper Corp.* v. *FTC, supra; British Oxygen Co., supra.*

Respondent's main argument is that Quemetco, prior to its acquisition by RSR, shipped more than 99 percent of its total production to customers in 11 states, the 3 in which its plants were located (California, Washington and Indiana) and 8 others adjacent to those 3 (Oregon, Kentucky, Illinois, Ohio, Idaho, Michigan, Nevada and Arizona). Respondent contends that the relevant geographic market in this proceeding cannot, as a matter of law, be larger than those 11 states. It is argued that this conclusion is required by the recent Supreme Court decisions in *United States* v. *Marine Bancorporation, supra,* and *United States* v. *Connecticut National Bank, supra.* See RB 6-10. In my view, respondent's reliance on the *Marine Bancorporation* and *Connecticut National Bank* cases is entirely misplaced. In those two cases, the government conceded that the statewide market in each case was not a banking market. The government contended, however, that because of the probability of statewide linkage of local bank oligopolies, the state as a whole was nevertheless an appropriate "section of the country" within the meaning of Section 7. The Court simply

rejected the government's argument and held that "section of the country" and "relevant geographic market" are the same in Section 7 cases. Furthermore, those two cases were potential competition cases. Therefore, it was necessary and appropriate to assess the effect of the challenged mergers within the geographic markets of the acquired banks. This is not a novel proposition. Respondent's argument would expand this proposition to include horizontal combinations of direct competitors and is manifestly untenable.

Furthermore, one of the main legislative purposes of the 1950 amendment to Section 7 was to eliminate the competition-between-the-merging-firms criteria from Section 7 and to permit an examination of a merger's effect in "any line of commerce in any section of the country." In the Senate Judiciary Committee's language:

> * * * [A]lthough the section of the country in which there may be lessening of competition will normally be one in which the acquired company or the acquiring company may do business, the bill is broad enough to cope with a substantial lessening of competition in any other section of the country as well.[9]

Thus, respondent's argument that in all Section 7 cases the relevant geographic market must be confined to the area into which the acquired firm shipped its product to a significant degree, not only flies into the face of a basic legislative objective of the amended Section 7, but also seeks to impose upon all Section 7 proceedings a restriction more stringent than the discarded acquiring-and-acquired firms criteria. In my view, such an argument must be rejected.

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[9] S. Rep. No. 1775, 81st Cong., 2d Sess. 6 (1950).

Finally, with respect to the overall U.S. lead market, the parties agree that the nation as a whole is an appropriate geographic market.

D. The Effects of the Acquisition

Complaint counsel's position is essentially that the challenged acquisition not only eliminated the substantial actual competition which had existed between RSR and Quemetco in the U.S. secondary lead market but also significantly increased concentration in that market to the detriment of competition. Complaint counsel also argue that the acquisition has similar anticompetitive effects in the overall U.S. lead market. Respondent's position is essentially that complaint counsel failed to establish the validity of the U.S. secondary lead market and that, in the overall U.S. lead market, the acquisition was procompetitive for it enabled the RSR-Quemetco combination to offer new competition to the lead industry giants.

The evidence shows that the preacquisition shipments of recycled lead by RSR were largely centered in the various states in the Southeast and Northeast, with a substantial portion also going to the Midwestern States of Indiana, Illinois, Missouri and Kansas. (F. 339) On the other hand, the preacquisition shipments of recycled lead by Quemetco were largely centered in the West Coast States of California, Oregon and Washington, and the Midwestern States of Indiana, Kentucky, Illinois and Ohio. (F. 399) Thus, in the U.S. secondary lead market, the challenged acquisition was, technically speaking, a horizontal acquisition. However, RSR did not ship any recycled lead to any of the West Coast States, while Quemetco did not ship any recycled lead to any of the Northeastern or

Atlantic Coast States, except a nominal amount to North Carolina. Therefore, it is fair to say that, in a realistic sense, the acquisition may be viewed essentially as a geographic market-extension merger, with some market-overlap in portions of the Midwest. In any event, the evidence is clear that, in a practical sense, actual competition between the two firms was confined to the Midwest section of the country. In the Midwest, however, the actual competition between the two firms was clearly substantial, and the acquisition eliminated that competition. Thus, the challenged acquisition was a violation of Section 7. *Stanley Works* v. *FTC*, 469 F.2d 498 (2d Cir. 1972), *cert. denied*, 412 U.S. 928 (1973).

The evidence also shows that, prior to the acquisition, the secondary lead industry was highly concentrated, the four largest firms accounting for 65.4 percent of the production and the eight largest, for 81.4 percent. The acquisition resulted in a combination of the second- and fifth-ranking firms. When the RSR-Quemetco combination is given effect, the four-firm and eight-firm concentration increased to 72.4 percent and 83.8 percent, respectively. Although the record does not allow an overview of the concentration trend over time,[10] there is no question that the challenged acquisition significantly exacerbated the already high concentration prevailing in the secondary lead industry in violation of Section 7. It is well established that "if concentration is already great, the importance of preventing even a slight increase in concentration and so preserving the possibility of eventual deconcentration is

[10] Dean Bok suggested a 5-10 year period for concentration trend analysis. Bok, *Section 7 of the Clayton Act and the Merging of Law and Economics*, 74 Harv. L. Rev. 226, 247-248 (1960).

correspondingly great." *United States* v. *Philadelphia National Bank, supra,* at 365, n. 42; *United States* v. *Aluminum Co. of America,* 377 U.S. 271, 279 (1964); *Stanley Works* v. *FTC, supra.* Also, there is strong evidence to show that, as the result of the acquisition, RSR's second-ranking position was further entrenched and its market leverage significantly enhanced in the U.S. secondary lead market. See F. 348-351.[11]

In these circumstances, respondent's argument that the acquisition was procompetitive because it gave RSR "multiplant" capability and enabled RSR to compete with the industry leader (NL Industries) in a wider geographic area reflects a skewed view of competition which is essentially self-serving. RSR's view of competition would completely ignore the merger's impact on smaller firms in the recycled lead industry. It may be that the desire to achieve multiplant capability was an important motive for RSR's acquisition of Quemetco. However, a benign motive does not save a merger which is otherwise unlawful under Section 7.[12] It suffices to point out that this merger involves neither small companies nor failing companies. A combination of the second- and fifth-ranking firms in an

[11] The record does not establish, as complaint counsel contend, that RSR's acquisition of Quemetco enabled it to "force" supply contracts upon such large customers as ESB and Prestolite. Furthermore, to the extent that complaint counsel's argument suggests that large customers, such as ESB and Prestolite, were dictated to by RSR because they could not practicably turn to another recycler, complaint counsel's argument would be inconsistent with their position that effective competition in the secondary lead industry is national.

[12] To the extent that multiplant capability was desirable for RSR, congressional policy embodied in Section 7 of the Clayton Act requires that RSR attain that capability by internal expansion, by building new plants.

industry can hardly be characterized as a merger involving two small firms. See *Brown Shoe Co.* v. *United States, supra,* at 331.

With respect to the overall lead market, however, the picture is markedly different. First, it is fair to say that the market-overlap between the two merging firms, when viewed against the overall lead market universe, is not significant. Thus, in the overall market, the actual competition eliminated by the challenged acquisition was not substantial. Next, from the concentration point of view, the acquisition, by transferring Quemetco's market share from St. Joe Minerals, the top-ranking firm, to RSR, the fifth-ranking firm, in fact significantly diminished the four-firm concentration (from 50.2 percent to 47.6 percent), although the eight-firm concentration remained unaffected. In these circumstances, it cannot be concluded that the acquisition is likely to result in the statutorily proscribed effect in the overall lead market. Complaint counsel's proposed findings which treat Quemetco as an independent entity in the U.S. lead market prior to its acquisition by RSR ignore the fact that Quemetco was a wholly owned subsidiary of St. Joe Minerals, the top-ranking firm in the overall market, beginning in late December 1970. For market share and concentration analysis in the U.S. lead market, St. Joe Minerals and Quemetco should obviously be treated as a single entity for the purposes of this proceeding.[13]

[13] Even if St. Joe Minerals and Quemetco were treated as separate entities in the overall lead market, the evidence shows that the concentration declined slightly in 1972. (CPF 229) On a pro forma basis, after the acquisition, the eight-firm concentration increased slightly, from 66.83 percent to 67.66 percent. (CPF 230) In my view, this fact, in itself, is insufficient basis for a finding of Section 7 violation.

Respondent argues that the advent of calcium lead technology and its recent application to the so-called maintenance-free automotive batteries bring into serious question the future economic viability of the secondary lead market and that whatever anticompetitive effects the challenged acquisition may have in the future in that market is largely mitigated. The evidence is inconclusive as to the effect of the calcium lead technology upon the future of the secondary lead market. The evidence is clear, however, that the leading recycled lead producers, with the exception of RSR, are not in the least concerned about the future of recycled lead. As a matter of fact, NL Industries is in the midst of a large-scale expansion program which envisions the doubling of its present capacity by 1980. (RXs 142-145) In any event, even if it were assumed that the major automobile manufacturers in the United States would switch to calcium lead batteries as original equipment, the demand for recycled lead will remain substantially undiminished for the foreseeable future. (F. 335) Therefore, respondent's argument in this respect is rejected as unsupported by the evidence. Future decline in the demand for antimonial lead may result in reducing to some extent the cost advantage traditionally enjoyed by scrap recyclers with respect to sales of antimonial lead to battery manufacturers. (F. 116-118) However, although the recycled lead industry faces some problems, there is nothing in the record to raise a serious question over the economic future of the recycled lead industry as a whole.

E. Relief

It is well settled that divestiture is the "most drastic, but most effective, of antitrust remedies", and that complete

divestiture is "peculiarly appropriate" in cases of stock acquisitions which violate Section 7. And the Supreme Court has stressed the paramount duty of courts to decree relief effective to redress the violations and to restore competition in the relevant markets, whatever the adverse effect of such a decree upon private interest. *United States* v. *E. I. du Pont de Nemours & Co.*, 366 U.S. 316, 326, 328 (1961). However, it is also well settled that divestiture is an equitable remedy designed to protect the public interest; it is *not* a punitive measure. *Id.* at 326. Thus, the Court has recognized that if it is concluded that there are more than one equally effective remedies, economic hardship may properly be taken into account in making the choice, consistent with the basic purposes of Section 7. *Id.* at 326-328.

It is also well established that courts' and the Commission's panoply of remedial sanctions includes the power to bar authorized acquisitions as well as other ancillary measures reasonably calculated to restore competition in the relevant market. *Luria Bros. & Co., Inc.* v. *FTC, supra,* at 865; *Abex Corp.* v. *FTC,* 420 F.2d 928 (6th Cir. 1970), *cert. denied,* 400 U.S. 865 (1970); *Ford Motor Co.* v. *United States,* 405 U.S. 562, 571-578 (1972); *Avnet, Inc.* v. *FTC,* 511 F.2d 70 (7th Cir. 1975), *cert. denied,* 44 U.S.L.W. 3202 (10/6/75).

Complaint counsel argue that the finding of Section 7 violation here requires complete divestiture of the acquired assets, including all four acquired plants. They further contend that divestiture should include the new recycling plant at Wallkill, New York because, as a result of the acquisition, Quemetco's new plant then under construction in Wallkill, New York was taken over by RSR, which subsequently abandoned its plan to construct a replacement

plant for the Newark, New Jersey plant which had been scheduled to be closed. Complaint counsel contend that but for the acquisition there might be two secondary lead plants in the Midwest now, in addition to the Wallkill, New York plant. It is my determination that, in the circumstances of this case, complete divestiture is not necessary in order to redress the violation and restore competition in the U.S. secondary lead market.

First, the finding of Section 7 violation in the U.S. secondary lead market was based on the market overlap between RSR and Quemetco in the Midwest. See [pp. 106a-107a], *supra.* Although the fact that the market overlap between the merging firms was limited to but a small portion of the national market does not place the merger beyond the reach of Section 7, that fact may properly be taken into account in the fashioning of an appropriate remedy. See *Brown Shoe Co.* v. *United States, supra,* at 337, n. 65. In the instant case, the market overlap between the two firms was largely limited to a portion of the Midwest and Quemetco's Indianapolis plant accounted for the bulk of the overlap. RSR's shipments of recycled lead into the overlapping states in the Midwest represented but a small portion of RSR's total shipments. (F. 339, 199, 206, 207) Prior to the acquisition, Quemetco did not ship any recycled lead to any of the New England or Northeastern states. (RX 29B) In these circumstances, I am persuaded that divestiture of the Indianapolis plant is a sufficient remedy.

I have also determined that divestiture of the Wallkill, New York plant is not required in the circumstances of this case. First, although the construction of the Wallkill facility by Quemetco was near completion at the time of its takeover by RSR, no recycled lead was produced or shipped

from that plant until after the RSR takeover. Secondly, the decision to close RSR's Newark, New Jersey facility was forced upon RSR by the Newark Housing Authority's determination to terminate the month-to-month lease covering the plant site. Prior to the acquisition, RSR had decided to close the Newark plant, and the plant was closed in late 1972. Thus, to the extent that the elimination of potentially procompetitive effect of the new Quemetco facility at Wallkill, New York may be taken into account in fashioning a remedy designed to restore competition in the U.S. secondary lead market, RSR's forced closing of the Newark plant may be viewed in a real sense as a *de facto* divestiture for the purposes of relief.

It is true that divestiture of all four acquired plants sought by complaint counsel will result in the creation of a national producer and seller of recycled lead, assuming the four plants are sold to a single purchaser. However, that course would also reduce RSR, a national producer-seller of recycled lead at the present time, to a single-plant firm, operating out of the Dallas plant. The net result will be that the number of *national* producer-sellers of recycled lead will be the same after complete divestiture. In other words, it is fair to say that even if the four plants are purchased by a single firm, it cannot be reasonably expected to accomplish any more than what the proposed partial divestiture will do in the way of restoring competition in the *national* market. Furthermore, as discussed hereinabove, the market overlap between the merging firms was limited to but a portion of the Midwest. In terms of the national market, the acquisition was illegal, in any realistic sense, only to that extent. And, divestiture of the Indianapolis facility will adequately redress that violation. Further-

more, there is convincing evidence tending to show that complete divestiture sought by complaint counsel may deal such a severe financial blow to RSR that RSR's competitive effectiveness as a single-plant firm may be seriously curtailed even if it can successfully solve its financial problems in time. (F. 352-353) And the evidence does not encourage any hope that, after complete divestiture, RSR will soon be able to construct a replacement plant for the closed Newark facility, much less to expand its operations to become another national producer-seller of recycled lead. Therefore, RSR's economic hardship may be properly taken into account in choosing a partial divestiture which, in my view, will be equally effective in redressing the violation and restoring competition in the U.S. secondary lead market. In these circumstances, to require complete divestiture would be essentially punitive. See *United States* v. *du Pont Co., supra,* at 326-28.

The record does not show that the divestiture of the Indianapolis plant would result in elimination of substantial efficiencies or benefits to the consumer. In my view, the various efficiencies RSR ascribes to its post-acquisition multiplant capability can be achieved just as effectively with the four remaining plants as with the five it now operates. Respondent's argument that it needs all five plants in order to offer effective new competition to NL Industries in the secondary lead market as well as to the giant primary firms is a distorted and self-serving view of competition and is rejected.

In order for the divestiture relief to be effective, however, the Indianapolis plant must remain a viable and effective competitor in the relevant market after divestiture. Therefore, in order to insure the effectiveness of the divestiture

directed herein, respondent will be required to divest the the Indianapolis plant to a purchaser approved by the Commission in such a manner as would insure the divested plant as a going concern and a viable, competitive producer and seller of recycled lead. This requirement may include provision of the necessary technological and marketing know-how for the transition period.

Finally, in view of the high concentration prevailing in the U.S. secondary lead market and respondent's second-ranking market position therein, respondent will be prohibited from making any acquisition in that market, except with the Commission's prior approval, for a period of 10 years.

Conclusions of Law

1. The Federal Trade Commission has jurisdiction of the subject matter of this proceeding and of respondent RSR Corporation ("RSR").

2. On or about October 26, 1972, RSR acquired all of the issued and outstanding stock of Quemetco, Inc. ("Quemetco").

3. At all times relevant to this proceeding, RSR and Quemetco were engaged in commerce within the meaning of the Clayton Act.

4. For the purposes of assessing the legality of the acquisition under Section 7 of the Clayton Act, the appropriate lines of commerce are the overall lead business and the secondary lead business.

5. The United States as a whole is an appropriate section of the country within which to test the effect of the acquisition.

6. Prior to and at the time of the acquisition, RSR and Quemetco were substantial actual competitors in the United States secondary lead market.

7. The acquisition eliminated substantial actual competition between RSR and Quemetco in the secondary lead market.

8. The acquisition substantially increased concentration in the secondary lead market.

9. The effect of the acquisition of Quemetco by RSR may be substantially to lessen competition in the secondary lead market in the United States, in violation of Section 7 of the Clayton Act.

10. Divestiture of the Indianapolis lead recycling plant is both necessary and appropriate to remedy the probable anticompetitive effects of the unlawful acquisition.

11. RSR should be prohibited from acquiring any secondary lead business, without prior approval of the Federal Trade Commission, for a period of 10 years.

12. The complaint should be dismissed in all other respects.

ORDER

I.

IT IS ORDERED that respondent, RSR Corporation (hereinafter "RSR"), a corporation, and its officers, directors, agents, representatives, employees, subsidiaries, affiliates, successors and assigns, shall divest all assets, title, properties, interest, rights and privileges, of whatever nature, tangible and intangible, including without limitation all

buildings, machinery, equipment, raw material reserves, inventory, customer lists, and other property of whatever description pertaining to the Indianapolis, Indiana plants acquired by RSR as a result of its acquisition of Quemetco, Inc. (hereinafter "Quemetco") together with all additions and improvements thereto which have been added subsequent to the acquisition. Such divestiture shall be absolute, shall be accomplished no later than one (1) year from the date when this Order shall become final, and shall be subject to the prior approval of the Federal Trade Commission.

Opinion and Final Order of the Federal Trade Commission, December 2, 1976

UNITED STATES OF AMERICA

BEFORE FEDERAL TRADE COMMISSION

COMMISSIONERS:

Calvin J. Collier, Chairman
Paul Rand Dixon
Elizabeth Hanford Dole
David Clanton

DOCKET No. 8959

In the Matter of

RSR CORPORATION, a corporation.

OPINION OF THE COMMISSION

By Dixon, Commissioner:

Complaint in this matter was issued on April 1, 1974, charging respondent RSR Corporation (hereinafter RSR) with violating Section 7 of the Clayton Act, as amended (15 U.S.C. §18) by virtue of its acquisition in October 1972 of substantially all of the stock of Quemetco, Inc. (hereinafter Quemetco), for $22 million. At the time of its acquisition Quemetco was a wholly owned subsidiary of St. Joe Minerals Corporation.[1] The complaint alleged in

[1] St. Joe had itself acquired Quemetco, in 1970, and was, at the time of its sale of Quemetco to RSR, respondent in a Commission proceeding challenging its own acquisition. St. Joe subsequently signed a consent order in disposition of the Commission proceedings, Docket No. 8892, 83 FTC 1357 (1974).

particular that the effect of RSR's acquisition of Quemetco might be to substantially lessen competition or tend to create a monopoly in the United States lead market and the United States secondary lead market by, *inter alia*, eliminating substantial actual competition between Quemetco and RSR and between Quemetco and other firms in the relevant markets, raising barriers to entry into the relevant markets and significantly increasing concentration levels in the relevant markets.

Hearings were held before administrative law judge (ALJ) Montgomery Hyun, who found a violation of Section 7 in the United States secondary lead market, though not in the overall United States lead market. Judge Hyun recommended entry of an order requiring RSR to divest itself of Quemetco's Indianapolis smelting plant, one of four obtained in the acquisition.[2]

Both sides have appealed from the initial decision, respondent arguing that no violation has occurred while complaint counsel contend that more extensive divestiture is necessary to cure the violation found by the administrative law judge.

The Merging Companies

Both respondent RSR and Quemetco are chiefly producers of "secondary" or "recycled" lead, *i.e.*, lead recovered from secondary or scrap sources of lead such as discarded lead-acid type batteries. "Primary lead" is lead

[2] RSR also obtained a lead processing plant in Garland, Texas, owned by Quemetco through its subsidiary Bestolife Corp. References to "plants" in this opinion do not include Bestolife.

produced by smelting and refining of ores and base bullion. (I.D. 1)[3]

RSR was founded in 1970 for the purpose of acquiring and operating a lead smelting and refining plant in Newark, New Jersey, originally under the name "Revere Smelting & Refining Corporation." (I.D. 3) In 1971 RSR reorganized and acquired Murph Metals, Inc. which operated a recycling plant in Dallas. For the first nine months of 1972 RSR had sales of $24,000,000, and showed assets of $12,665,507 as of June 30, 1972. With lead shipments of 61,000 tons in 1971 and 75,000 tons in 1972 RSR was the second largest secondary lead producer in the country in those years, (I.D. 5-6). In 1971 RSR accounted for 10.22% of secondary lead shipments in the United States, and 3.93% of total domestic lead shipments. In 1972 RSR's shares of secondary and total lead shipments were 12.16% and 4.41% respectively. (I.D. 246-247, 256-257).

The acquired firm, Quemetco, was founded in 1946 and incorporated the following year as "Western Lead Products Co." It became "Quemetco" in 1970, by which time it operated three lead recycling plants, at City of Industry, California (near Los Angeles); Seattle, Washington; and Indianapolis, Indiana. (I.D. 19). On December 29, 1970, Quemetco was acquired by St. Joe Minerals Corporation, which authorized an expansion program for Quemetco involving the construction of a replacement plant for the Indianapolis smelter and a new plant in Wallkill, New

[3] The following abbreviations are used herein:
I.D. — Initial Decision, Finding No.
I.D. p. — Initial Decision, Page No.
CX — Complaint Counsel's Exhibit No.
RX — Respondent's Exhibit No.
Tr. — Transcript of Testimony, Page No.

York. (I.D. 24). At the time of Quemetco's acquisition by RSR the Wallkill plant was in the final testing stage before commencement of smelting and refining operations. The plant began production a month after the RSR acquisition. (I.D. 26)

For the first nine months of 1972 Quemetco made sales of roughly $30.4 million and as of September 30, 1972, showed assets of $26,243,890 (I.D. 20). It produced 39,558 tons of secondary lead in 1971 and 43,281 tons in 1972, accounting for 6.63% and 7.02% of secondary lead shipments in those years and 2.55% and 2.54% of total lead shipments. (I.D. 246-247; 256-257)

At the time it acquired Quemetco, RSR was on notice that it would soon be required to close its Newark recycling plant. The plant was located on premises leased month-to-month from the Newark Housing Authority, and RSR had been told that its lease would be terminated in 1973. Until the possibility of acquiring Quemetco materialized, RSR had been making plans to build a replacement smelter in the East. (I.D. 14-15; CX 26A) The Newark plant was in fact closed shortly after consummation of the merger, (I.D. 14) leaving RSR with five plants: Seattle, City of Industry (Los Angeles), Dallas, Indianapolis, and Wallkill. In 1972, RSR and Quemetco combined accounted on a *pro forma* basis for 19.18% of secondary lead shipments. (I.D. 258)

The Initial Decision

The administrative law judge determined that "secondary lead" constituted an appropriate product submarket within which to test the merger, and that the United States as a whole constituted a suitable "section of the country". The law judge concluded that the merger had eliminated

substantial actual competition between Quemetco and RSR in the United States secondary lead market. (I.D. 338). The merger increased concentration in the secondary lead industry, from four-firm and eight-firm ratios of 65.40 and 81.41 before the merger to four-firm and eight-firm ratios of 72.41 and 83.77 thereafter. (I.D. 264-265). In the face of specific examples of foreclosure of competition resulting from the acquisition (I.D. 349-351) and the significant increase in concentration in an already concentrated industry, the law judge concluded that the merger violated Section 7. With respect to the overall lead market, however, in which Quemetco and RSR were relatively much less important factors, the judge found no violation.

While finding a breach of Section 7, the judge ordered only partial divestiture. He noted that lead recycling is in some sense a regional endeavor, with sales being made principally within several hundred miles of each plant location. Concluding that the principal geographic overlap between RSR and Quemetco occurred in the Middle West region, the law judge ordered only that RSR divest Quemetco's Indianapolis plant.

On appeal, respondent contends that secondary lead is not a proper submarket within which to test the merger, and that the United States as a whole is an improper market area. Respondent further argues that even within those markets the merger has not been shown to present a likelihood of substantially lessening competition. Complaint counsel defend the ultimate conclusions of the administrative law judge, though taking issue with certain of his findings regarding the geographic area within which facilities of Quemetco and RSR would be able to and actually do compete. Complaint counsel contend that restoration of competition to something approaching the pre-merger *status quo* requires divestiture of a multi-plant Quemetco, consisting of either three or four Quemetco lead recycling plants as well as other Quemetco assets.

The Commission's own review of these issues follows.

Product Market

Applying the indicia outlined by the Supreme Court in the Brown Shoe case[4] the ALJ concluded that secondary lead constitutes a well-defined product submarket within the overall United States lead market. The judge's conclusion is amply supported by the record and we affirm it.

1) *Distinct Production Facilities and Vendors*

Although disputing their "economic significance", respondent acknowledges that the secondary lead industry is characterized by distinct production facilities and vendors. For a variety of reasons, detailed at I.D. 54-112, primary producers do not and cannot process lead scrap into lead, while secondary facilities are not suitable for processing lead ore. Such lack of supply side interchangeability is hardly insignificant in assessing whether a submarket exists. It means, in essence, that secondary producers compete with other secondaries for the purchase of scrap, while primaries compete with primaries in the search for ore.

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[4] *Brown Shoe Co.* v. *United States,* 370 U.S. 294 (1962); The criteria cited by the Supreme Court include (1) public recognition of the submarket as a separate economic entity; (2) peculiar product characteristics and uses, (3) unique production facilities, (4) distinct customers, (5) distinct prices; (6) sensitivity to price changes and (7) specialized vendors.

2) *Distinct Product Characteristics and End Uses*

The ALJ further concluded that secondary lead and primary lead have distinct characteristics and end uses. While primary and secondary lead do compete to a limited extent, their lack of interchangeability for certain major end uses is almost complete, and of sufficient significance to support the denomination of secondary lead as a valid submarket.[5]

Battery producers are the major source of lead consumption, with battery grids and posts accounting for 23% and battery oxides accounting for 26% of lead consumption in 1972. (I.D. 149) For reasons summarized here and detailed in the initial decision secondary producers provide virtually the entire supply of lead used by battery manufacturers to produce grids and posts, (I.D. 135) while primary producers provide the bulk of lead used by battery makers for battery oxides. (I.D. 137)

As the law judge noted, production of battery grids and posts requires antimonial lead (lead alloyed with antimony)

[5] Obviously there will often be some degree of interchangeability between products in different submarkets of the same overall market. This is implicit in the concept of a *sub*market. A concise description of the situation in this case is contained in an RSR filing with the SEC, prepared in 1972:

> "The Company competes not only with other independent secondary producers, but also with smelting and refining divisions of integrated manufacturers of lead products as well as, *to a limited extent, with producers of primary lead.*" (I.D. 41) [emphasis added]

The question we must ask is whether interchangeability among products in an overall market is so great that buyers would be able to react to limitations upon supply within the alleged submarket by shifting without consequence to suppliers outside the alleged submarket.

which constituted roughly 70% of the output of secondary smelters in 1972. (I.D. 115) Secondary producers have an advantage in the production of antimonial lead because the scrap they smelt (often consisting of discarded batteries) already contains large quantities of the necessary antimony. (I.D. 118) While primary producers are capable of adding antimony to their output of "pure" lead to produce antimonial lead, the end product has generally turned out to be unsuitable for casting grids and posts, (I.D. 119) and is somewhat more expensive to produce. (I.D. 118) As a result, only a small amount of antimonial lead is produced by primary producers, (I.D. 116) and all of the lead used in battery grids and posts is supplied by secondary smelters. (I.D. 117)

The symbiotic existence of battery manufacturers and secondary lead producers is further reflected in the existence of numerous "tolling" agreements, whereby smelters obtain discarded scrap batteries from battery producers, smelt them down, and return antimonial lead to the manufacturers for use in new batteries. (I.D. 138-140)

Antimonial lead used by battery manufacturers amounted in 1972 to more than 50% of all secondary lead produced. (I.D. 117; CX 19E, W) Thus, with respect to the disposition of more than half their output, secondary producers simply are not in competition with the primaries.[6]

[6] Respondent suggests that the ALJ improperly disregarded the increasing popularity of calcium lead batteries in defining the market. Respondent argues that because grids and posts of so-called maintenance-free batteries are made with calcium lead, an alloy which primary producers are readily capable of producing, the output of primary producers therefore competes with the antimonial lead produced by the secondaries. This argument must be rejected because maintenance-free and regular batteries are in a funda-

The situation is more equivocal in the case of end uses such as battery oxides and other products which must be produced from "pure" (also "soft" or "unalloyed") lead. Some measure of competition exists here between primary and secondary producers, but it is limited by differing production economies in the manufacture of primary and secondary lead, as well as by real and perceived differences in the two products. There is some dispute in the record over the extent to which recycled soft lead can be made to match the purity of primary soft lead for various industrial uses. As the law judge noted, fabricators of metal products have historically preferred primary soft lead, on grounds of its actual and perceived greater purity (I.D. 165). The extent of such preferences has apparently declined as improved analytical techniques have increased the purity of recycled soft lead (I.D. 165), but they still remain an important factor in determining the demand for lead. (I.D. 165-6) Moreover, for certain (relatively minor) end uses requiring soft lead, customers will purchase only primary lead because the presence of certain trace impurities in secondary lead would adversely affect the quality of the product. (I.D. 168)

For the foregoing reasons, and due as well to the nature of production economies which encourage the secondary producer to turn out alloyed lead, primary producers account for most unprocessed pure lead sales to battery manufacturers and lead products fabricators (I.D. 137).

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mental sense different products (or, different "end uses") and a manufacturer's decision to shift production between one and the other is likely to depend on far more than simply the relative prices of antimonial and calcium lead. *See also* discussion at pp. [149a-150a].

Only a small fraction of the secondary smelter's pure lead output is sold in unprocessed form, the bulk being converted internally into lead oxide and sold to battery manufacturers (I.D. 115, 145-6, 150).[7] Some secondary producers (although neither RSR nor Quemetco at the time of their merger) also sell pure lead to manufacturers of gasoline antiknock additives (tetraethyl lead). Generally, however, this lead is limited to that derived from the conversion of TEL slag, a process peculiarly within the competence of secondary producers. The bulk of lead from general production used in TEL is still supplied by primary producers. (I.D. 144)

3) *Other Factors*

Record evidence with respect to relative pricing patterns of primary and secondary lead is not abundant. The ALJ noted that some measure of price disparity exists between primary and secondary lead, with secondary lead customarily selling for less than primary. (I.D. 169, 172). Respondent's own internal analysis supports this conclusion, (CX 22B, A) although ascribing this situation to the lower cost of recovering secondary lead. If "lead is lead", as respondent has insisted throughout this proceeding, then price differentials based simply upon differing methods or costs of production should not persist. If purchasers viewed secondary lead as an undifferentiable substitute for primary lead, we trust that neither the generosity nor the lower

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[7] Of course, to some extent, the pure lead made into oxide by secondary producers must be viewed as in competition with the pure lead sold by primaries to battery manufacturers for their own production of oxide, even though such manufacturers might not buy pure lead directly from a secondary producer.

cost curve of secondary producers would suffice to maintain secondary prices consistently below those achieved by competitors selling an allegedly identical product. The fact that, by respondent's own admission, secondary prices do generally fall below those for primary lead clearly lends support to the ALJ's conclusion that "[secondary] lead is not [primary] lead."

Finally, the ALJ took note of considerable industry recognition of lead recycling as a distinct and significant economic activity. (I.D. 39-43, 148) In the words of Robert Quenell, Quemetco's founder:

> Q. Mr. Quenell, did you consider St. Joe to be a competitor of Quemetco's at the time they were acquired by St. Joe?
> A. No.
> Q. Why not?
> A. We were not competitors. We did not sell the same product. We never came across St. Joe in that respect. They were sellers of primary lead and we never sold primary lead, and we very seldom sold any soft lead or pure lead at all. Therefore, we were not competitors.
> Q. Did you consider Quemetco to be a competitor with RSR at the time RSR acquired Quemetco?
> A. Yes.
> Q. Why?
> A. We were in the same business. We were secondary smelters. They were secondary smelters. We sold to the same customers. We sold the same product to the same customers. We competed in the open market for the same parcels of scrap. We were direct competitors. (Tr. 505)[8]

4) *Conclusion*

We think the preceding considerations weigh dispositively in favor of the ALJ's determination that secondary lead constitutes a valid submarket for antitrust purposes. Primary and secondary lead production constitute economically distinct activities, involving different technologies and different raw materials, thereby eliminating competition between the two for the factors of production. On the supply side, the outputs of primary and secondary producers are to a considerable degree not interchangeable. This is particularly so with respect to the antimonial lead sold to battery manufacturers, which accounts for more than half of secondary production. A battery manufacturer seeking material for the grids and posts of ordinary batteries simply cannot feasibly look beyond a small number of secondary producers to provide the necessary inputs. A merger which limits competition among secondary producers will, to the very same extent, limit

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[8] Respondent objects to this testimony by Mr. Quenell on grounds that having been deposed as leader of Quemetco by virtue of conflicts arising from RSR's acquisition, he cannot be considered an unbiased witness. While it is true that any witness' testimony must be weighed in light of his or her possible biases, we see no reason to ignore the cited testimony, inasmuch as it is generally corroborated by other aspects of the record. Many of the witnesses in this case, including both RSR officials who testified for respondent and industry members who testified for complaint counsel, may have personal reasons for favoring one outcome of this case over another; this in itself does not render such testimony invalid, it is merely a factor to be considered in weighing each facet of it.

the competition available to satisfy the battery manufacturer's needs.

The situation is less sharply defined with respect to the use of pure lead, but once again, the extent of competition between primary and secondary output is restricted by differences in the products and in their methods of production. Finally, the existence of distinct prices for primary and secondary lead, and some submarket recognition by industry members point modestly to the existence of a separate secondary lead submarket. For all of the above reasons we shall adopt this submarket for purposes of our analysis of the merger before us.[9]

Geographic Market

The law judge agreed with complaint counsel that the United States as a whole constituted an appropriate geographic market within which to test the merger. The judge based his conclusion on the fact that NL Industries, Inc., the largest secondary producer, has for years maintained smelters in various parts of the country and sold on a national basis, negotiating national supply contracts with battery manufacturers covering their production throughout the country. An important purpose of RSR's acquisition was to permit it to compete more effectively with other national sellers of lead, and by virtue of its acquisition it has been enabled to sell in almost every section of the country. (I.D. pp. [103a-104a])

Respondent objects to the ALJ's conclusion while complaint counsel quarrel with certain subsidiary findings.

[9] The same conclusion with respect to secondary lead has been reached in a monopolization case, *United States* v. *American Smelting and Refining Co.*, 182 F. Supp. 834, 853-55, (S.D.N.Y. 1960).

Respondent argues that lead recycling is essentially a regional business, and that transportation economies dictate that recyclers sell within a radius of a few hundred miles from their plants. As a result argues respondent, RSR and Quemetco before the merger sold principally in the limited number of states surrounding their smelters, with very little geographical overlap. Both, in respondent's view, were regional producers, whose marketing areas coincided only insignificantly.[10]

Market definition is seldom an easy task and this case is no exception. The nature of secondary lead production is such that any approach to defining one or more appropriate "sections of the country" within which to test a merger is unlikely to be wholly satisfying to those who would aspire to absolute precision. The Supreme Court has recognized, however, that the language of Section 7 does not require delineation of the section(s) of the country in which a merger may affect competition "by metes and bounds as a surveyor would lay off a plot of ground." *United States* v. *Pabst Brewing Co.*, 384 U.S. 546, 549 (1966). Our review of the evidence in this case convinces us that on balance the United States as a whole is a proper market within which to evaluate the effects of the

[10] Respondent's answer to the complaint appears to acknowledge the existence of a national market, while denying that either of the acquisition partners participated in it. Thus, respondent averred in Paragraph 15 of its amended answer that

> ". . . there are regional markets in addition to the national market, that prior to RSR's acquisition of Quemetco in October, 1972, RSR and Quemetco each participated in some of said regional markets but not others, and that prior to that acquisition, neither RSR nor Quemetco was a participant, in any meaningful sense, in the national market."

challenged merger, albeit regional submarkets might also be appropriately designated.

To be sure, the area in which a secondary lead producer is likely to compete will be heavily influenced by the location of its plants. Shipment sizes of secondary lead are rarely large enough to justify train transportation, (I.D. 182) and trucking tariffs do not provide the same favorable rates over long distances as do trains. (I.D. 183-185). As a result, all things being equal, a secondary producer would prefer to sell to those accounts closest to the supplying plant. All things, however, are rarely equal, and under appropriate circumstances secondary producers will ship product over substantial distances.

There are no physical limitations on the distances which lead may be shipped, only economic ones. A small plant located in the midst of a heavy consuming area may be able to market its entire output within that area. This is illustrated by Quemetco's City of Industry (Los Angeles) smelter, which shipped its output average distances of only 66 miles in 1971 and 57 miles during the first ten months of 1972.[11] On the other hand, a plant less favorably situated (perhaps as the result of shifts in demand patterns) may find it necessary to ship longer distances to find an outlet for its supplies. A dramatic illustration of this phenomenon appears to be Quemetco's Seattle smelter whose average shipping distances were 527 miles in 1971

[11] The Commission has calculated the average shipping distance for secondary lead output of RSR's plants (exclusive of output transferred intra-company for internal consumption) from raw data compiled by respondent and introduced by complaint counsel. The results of these calculations are arrayed and explained in the Appendix to this Opinion as are the Commission's reasons for rejecting the analysis of the raw data supplied by respondent and relied upon, in part, by the ALJ.

and 554 miles during the first 10 months of 1972. To reach major consuming areas in California the Seattle plant shipped more than 45% of its output (exclusive of that consumed internally for production of lead oxide) to locations more than 700 miles from Seattle. In 1971 the corresponding figure exceeded 40%. (Appendix).

Shipping distance may also be a function of the interaction of plant size and economies with market conditions. A larger, more efficient plant can ship its output farther, as the ALJ found, because lower unit production costs permit absorption of larger freight costs. (I.D. 214) RSR's Dallas plant is by far the largest of those involved here and it made substantial shipments of lead to the Midwest "in order to maintain a market position" (I.D. 214) and to the East.[12]

Shipped output of secondary lead was transported approximately 300 miles on average from the Dallas plant in 1971, and over 400 miles during the first 10 months of 1972. During this latter period more than 30% of the secondary lead sold by the Dallas smelter was trucked to consumers more than 700 miles from the plant, including 7.6% shipped over 1500 miles to areas in the East and 10.9% shipped between 900 and 1000 miles. (Appendix).

Thus, while average shipping distance was approximately 220 miles for Quemetco's plants during the 1971-72 period preceding the merger, and 275 miles for RSR's, it is clear that plants of both companies had the capacity

[12] The law judge also found that RSR was considering establishment of a new plant in the Midwest. Preliminary findings indicated such a plant would not be feasible, and plans were subsequently abandoned when Quemetco, with its Midwestern (Indianapolis) facility was acquired. (I.D. 233-234)

to, and did, compete substantially in market areas far more distant.

Respondent, in arguing against its presence in a national market, makes much of the ALJ's findings that substantial sales by Quemetco and RSR were limited to a fraction of the 50 states, with significant overlap in only a few. Thus, the ALJ found that nearly all of Quemetco's sales in the 1971-72 period preceding the merger were made within 11 states surrounding its plants (I.D. 194), while RSR shipped more than 1% of its plant output to only 13 states. (RX 29C) All told, Quemetco shipped to 16 states in 1971 and 15 during the first 10 months of 1972. RSR shipped to 20 states and 19 states respectively during these periods. (I.D. 198, RX 29C) RSR did not ship to the West Coast, where Quemetco sold most of the output of its Seattle and City of Industry plants. (I.D. 204).

These figures, however, tell only part of the story. Inclusion of the Wallkill plant, for which Quemetco was soliciting customers at the time of the merger, adds several states in which Quemetco was for all intents and purposes competing when it was acquired. Moreover, in large areas of the country consumption of lead generally and antimonial lead in particular is virtually nil (I.D. 220, CX 19X) and the absence of shipments to states in these areas is of correspondingly slight significance. Undeniably, both Quemetco and RSR prior to the merger were actually selling in (or soliciting business in the case of Quemetco's Wallkill plant) or within reasonable shipping range of, areas of the country accounting for the major share of domestic lead consumption. As the law judge found, in 1972 Quemetco made sales from existing plants or expected to sell from its Wallkill plant in states whose lead

consumption represented 70% of total U.S. lead consumption, while RSR made sales in states whose consumption represented 80% of total U.S. lead usage (I.D. 226). Within 300 miles of Quemetco's four plants, including Wallkill, lie 22 states which accounted for 78% of United States lead consumption in 1972. Similarly, within 800 miles of RSR's plants, a distance to which the Dallas smelter shipped more than 20% of its output during the first 10 months of 1972[13] were states which accounted for 87.5% of total lead consumption in 1972. Corresponding statistics for secondary lead are not available (Tr. 654), but the record does contain statistics on consumption of antimonial lead (CX 19X, Table 16) which indicate, as complaint counsel point out, that the 13 states surrounding Quemetco's four plants accounted for 59% of antimonial lead consumption in 1972, while the states within the 300 mile radius cited by the ALJ accounted for well over 60% of such consumption. RSR in 1971 shipped lead to states accounting for over 70% of U.S. antimonial lead consumption. (CX 19X, Table 16; I.D. p. [54a], n.7)[14]

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[13] The figure cited in I.D. 227 is 13.4% of consumption. Our 20% figure is based upon the computations contained in the appendix, and excludes secondary lead production which was consumed internally by the Dallas plant, and which was counted as being shipped zero miles for purposes of the ALJ's computation.

[14] The administrative law judge refused to use figures pertaining to total lead consumption in determining the existence of a national secondary lead market. While this was certainly understandable, we think complaint counsel are correct in pointing to data on antimonial lead consumption in the absence of existing information on secondary lead. Inasmuch as the output of primary smelters consists almost entirely of non-antimonial lead while the output of secondary smelters consists of 70% or so antimonial lead, and secondary *shipments* consist of a much larger fraction since most secondary pure lead is used internally, figures with respect to anti-

Other indicia of a national market cited by complaint counsel include common customers and common prices, or at least nationwide pricing interdependence. The law judge appears not to have considered these factors important in his decision. While such factors do not militate unambiguously in favor of the designation of a national market, they do on balance lend support to it.

As the ALJ recognized, secondary lead producers throughout the nation share the same principal customers, the major battery manufacturers. These manufacturers, however, all maintain multiple plant locations, which are, as a rule, serviced by smelters located in their general geographic area. In disregarding commonality of customers as a factor, the judge in effect seems to have viewed each plant as a separate purchaser, leading to the conclusion that smelters in different sections of the country do not share the same buyers.

It is clear, however, that to some extent, the small number of companies to which secondary lead producers sell does affect the nature of the market. Thus, a firm with capacity to supply various regions of the country can contract on a national or wide-regional basis with the few major customers involved to supply multiple battery plant locations nationwide or at least within several large regions of the country. (I.D. 187, Tr. 520-21) Moreover, the fact that a lead smelter supplies a customer in one region of the country with product, may, by virtue of that customer's nationwide business lead the smelter to compete in other regions of the country as well.

There is, for example, discussion by respondent about "accommodation" sales, occasional deliveries to a customer's distant plant designed to tide it over during a period of shortage. A smelter selling to a battery plant nearby may be required to accommodate a plant far away in order to retain the manufacturer's patronage. RSR seeks to explain most of its long distance sales on grounds they constituted just such accommodations. Assuming *arguendo* that is so, it does not derogate from RSR's or any accommodator's status as a competitor for the business of that distant plant. The fact that a company serviced by a smelter in one region of the country can count on accommodative supplies to another plant in a different region of the country means that such customer need not be prey to whatever more onerous emergency arrangements a secondary producer with a smelter nearer by might be willing to make. In such a case the accommodating supplier has competed, or shared customers with the nearer would-be supplier just as surely as if it were next door.

monial lead constitute a reasonable proxy for secondary lead consumption figures.

Evidence with respect to pricing patterns also supports the designation of a national market. There is one national published price for lead, with frequent discounting throughout the country. The size of regional discounts, however, is likely to respond quickly to competitive conditions in neighboring regions. (I.D. 229) As prices rise in any given area, smelters at increasing distances have an economic incentive to ship into that area. (Tr. 1301, 1419) While quantification of this phenomenon must necessarily be imprecise, the record does suggest some of the relevant dimensions. According to a graph of transportation costs prepared by respondent[15] it would cost 1 cent per pound to ship lead roughly 300 miles by truck common

[15] RX 27. The graph reflects shipping costs at the time it was prepared, apparently 1975 (Tr. 841-843).

carrier, 2 cents per pound to ship it approximately 750 miles, and 3 cents to ship a pound of lead roughly 1350 miles. The respective costs of shipping by RSR's private trucking would be somewhat less. What these figures imply is that relatively small price increases in one region will render economical the transshipment of product from plants far removed. For example, a 1 cent per pound rise in the price of lead in a particular area (a 5%-7% increase, CX 61E) would enable a smelter already transporting its product an average distance of 300 miles to ship that product on average an additional 450 miles while maintaining the same profit margin. Thus any recycler or group of recyclers which would seek to raise prices in its surrounding territory must take into account the possible competitive response of firms with plants hundreds of miles distant, and such distant firms are in turn limited in their behaviour by the presence of plants hundreds of miles distant from them. The result can only be a significant measure of nationwide pricing interdependence. See *United States* v. *Bethlehem Steel Corporation*, 168 F. Supp. 576, 598-600 (S.D.N.Y. 1958).

For the foregoing reasons we find that the law judge was correct in designating a national market within which to evaluate the instant merger. The largest firm in the industry, National Lead, does compete indisputably in a nationwide market, *U.S.* v. *Grinnell Corp.*, 384 U.S. 563, 575 (1966), and RSR viewed the Quemetco acquisition as a means of enabling it to compete throughout this same nationwide market. While shipping costs place a constraint on the distance to which individual plants are likely to send their product, the constraint is only relative, and individual smelters can and do frequently ship product into regions

far distant from their plants, a factor which, combined with the presence of only a few major customers creates a substantial measure of regional interdependence. Moreover, the acquired firm, Quemetco, possessed plants (including Wallkill) located throughout the country and serving, or (in the case of Wallkill) about to serve sections of the country accounting for a very large proportion of total lead and antimonial lead consumption. RSR similarly sold in areas of the country accounting for a large share of such consumption, and actual sales activity by the two firms overlapped in at least two major consuming regions, the Midwest and East, cf. *United States* v. *Bethlehem Steel Corp.*, supra.

While it is clear from our review of the evidence that it might well be possible to define appropriate regional submarkets within which to test this merger,[16] the existence

[16] It should be noted, however, that designation of particular regional submarkets would be fraught with imprecision and uncertainties suggested by the preceding discussion, a point perhaps recognized by respondent which has declined throughout the proceedings to suggest what regional markets it believes are appropriate alternatives to the national market alleged in the complaint. In particular, it would make little economic sense to treat as relevant markets only those states in which the acquired firm actually made substantial sales at the time of its acquisition. For this reason we believe the Supreme Court's decisions in *United States* v. *Marine Bancorporation*, 418 U.S. 602 (1974) and *United States* v. *Connecticut National Bank*, 418 U.S. 656 (1974) upon which respondent relies, are inapposite. The Court in the bank cases dealt with an intensely localized industry whose members exerted a competitive effect only within a narrow radius, coextensive with or barely larger than that from which their customers were drawn. See *United States* v. *Philadelphia National Bank*, 374 U.S. 321, 358 (1963). Restriction of the permissible geographic market to the county in which the acquired bank was marketing its services to a significant degree was thus underpinned by the economic realities of the situation. We do not believe that in taking the approach it

of such is "not a basis for the disregard of a broader line of commerce that has economic significance", *United States* v. *Phillipsburg National Bank,* 399 U.S. 350, 360 (1970). The market for secondary lead obviously partakes of both national and regional characteristics. What this suggests is not that it is impossible to designate an appropriate "section of the country" for purposes of antitrust scrutiny but rather simply that designation of an appropriate market does not end the analysis and divest the Commission of an obligation to keep in mind the multifaceted character of the market in its analysis of anticompetitive effects.

Anticompetitive Effects

The ALJ found that RSR's acquisition of Quemetco may tend substantially to lessen competition in the national market for secondary lead. Any analysis of this issue must begin with the substantial concentration in secondary lead production, concentration which this merger aggravated severely. In 1971, the year prior to the challenged merger, the top four secondary lead producers accounted for 64.43% of industry shipments and the top eight firms for 79.81% of such shipments. (I.D. 263) By 1972, the respective four and eight firm figures had increased to 65.4 and 81.41%. (I.D. 264) By far the largest factor in the market was, and remains National Lead. RSR, in second place, accounted for 12.16% of production, and Quemetco, in fifth provided 7.02% of U.S. secondary lead shipments in 1972. (I.D. 257) The merger created a new number two firm

did the Supreme Court meant to set forth a standard requiring that in widely differing industries economic realities justifying broader markets be ignored.

accounting for 19.18% *pro forma* of industry shipments in the year of the merger, and increased 4-firm concentration from 65.4% to 72.41% *pro forma,* and from 81.41% to 83.77% *pro forma* for the top eight firms. (I.D. 264-265)

Moreover, the foregoing figures if anything understate the actual imminent increase in concentration resulting from this merger, because Quemetco's productive capacity at the time of the merger was about to increase by a substantially larger amount than the quantum of productive capacity lost to RSR by the closure of its Newark smelter. This results from the fact that Quemetco's Wallkill and new Indianapolis smelters, both designed to produce from 30-36,000 tons yearly (I.D. 25-26), were not finished until late in 1972, and their productivity is thus not included within the available market share figures.[17] When this factor is taken into account it is evident that this merger created a new number two company with the immediate prospect of generating well over 20% of industry shipments.

As the Supreme Court has observed in *United States* v. *Philadelphia National Bank:*

> ". . . [a] merger which produces a firm controlling an undue percentage share of the relevant market, and results in a significant increase in the concentration of firms in that market, is so inherently likely to lessen competition substantially that it must be enjoined in

[17] In the case of Indianapolis, the new plant was designed to replace an older, somewhat smaller one. (I.D. 260) With respect to the eastern region, the cited market share figures do include the output of RSR's Newark plant, but its capacity was considerably less than that of the Wallkill plant with which RSR in essence replaced it, and even less than the 24,000 ton plant which RSR had planned to construct as a substitute (I.D. 343).

> the absence of evidence clearly showing that the merger is not likely to have such anticompetitive effects." [374 U.S. 321, at 363 (1963)]

Quite clearly, concentration figures of the magnitude of those present in this case must give rise to a presumption, or *prima facie* case of illegality, *Philadelphia National Bank, supra*; see *United States* v. *General Dynamics Corp.*, 415 U.S. 486, 497 (1974). Moreover, the loss in competition which is likely to result from the disappearance of separate competitive entities in the highly concentrated secondary lead industry need not be left solely to presumption in this case, since the record contains documented instances in which RSR's acquisition of Quemetco was followed by the exaction of more restrictive terms from certain customers of both RSR and Quemetco than had previously been in existence. (I.D. 348-351)

While the ALJ concluded that "[t]he record does not establish as complaint counsel contend, that RSR's acquisition of Quemetco enabled it to 'force' supply contracts upon such large customers as ESB and Prestolite" (I.D. p. [108a], n. 11), the ALJ did find that RSR's post-acquisition terms to its buyers were less flexible than those previously in effect. Thus, RSR instituted contractual arrangements for the purchase of lead where previously such had seldom existed (I.D. 349). These contracts had a 2-year term committing buyers to purchase specified tonnages of lead at specified future prices. The representative of at least one customer, Prestolite, testified that it did not have such contracts with any other supplier and the contracts limited its ability to negotiate elsewhere. (I.D. 350). Finally, an agent of ESB testified that his company had 1-year tolling

agreements with both RSR and Quemetco at the time of the merger, which permitted ESB to "purchase our material more economically", but was obliged to enter into a less favorable straight purchase contract with RSR when the tolling agreements expired (I.D. 351, Tr. 254-256). The witness was of the view that Quemetco's disapperance as an independent competitor and supplier had unfavorably altered ESB's position in bargaining for supplies of secondary lead. (Tr. 256)

RSR seeks to denigrate the significance of the concentration data by arguing that the areas of actual competitive overlap between itself and Quemetco were slight, and thus that national concentration figures overstate the degree of actual competitive foreclosure. It also attempts to take the sting out of the concentration evidence by pointing to new industry entrants and the absence of insurmountable barriers to new entry.

While the record does not permit a precise statistical analysis of the trend of concentration in secondary lead over time, it does reflect a somewhat larger number of exits than entries during the period preceding and immediately following the merger, including both exits by battery manufacturers (*compare* I.D. 274-284 with I.D. 271) and exits by independent producers (*compare* I.D. 285-291 with I.D. 271). Certainly there is nothing here to suggest that concentration in the secondary lead industry (the effects of RSR's merger aside) has been declining during any period of time preceding or following the merger. If anything the record suggests the contrary.[18]

[18] We should note, that even were the record to point (as it does not) to a decline in concentration exclusive of this merger, such a consideration could not weigh heavily in the face of the high ab-

Barriers to entry are obviously not insurmountable, but they are clearly significant. Construction of a 40,000 ton secondary smelter would today cost around $10 million (I.D. 302), and may require as much as three years. (I.D. 304). The necessity for expensive quality control equipment (I.D. 303) and stringent environmental and occupational safety and health standards have combined to raise the costs of smelter operation and hasten the exit of smaller, technologically obsolescent firms from the industry, (I.D. 291) while increasing the costs associated with *de novo* entry.

Although battery manufacturers are seemingly strong candidates for entry into the secondary lead industry, the record reflects a considerable lack of success by some in their smelting operations, and a reluctance by many to incur the different set of problems occasioned by the production of secondary lead. (I.D. 276-277, 282-283).

Evidence concerning the existence of potential competitors and the height of barriers to their entry may be of relevance in a horizontal merger case by giving some indication of the extent to which anticompetitive abuse facilitated by the merger will be allowed to occur before new competition is encouraged to enter and bring a halt. But even proof of low entry barriers (not present here) can be at most of slight exculpatory value in the face of probable anticompetitive effects, since all it suggests is that such effects may be smaller or shorter-lived, not that they

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solute level of concentration and the increase therein caused by the merger. Evidence of a trend toward concentration may be relevant to show a violation in a case such as *United States* v. *Von's Grocery Co.*, 384 U.S. 270 (1966) involving comparatively small market shares and comparatively low concentration. It is obviously not necessary in a case involving large shares and high concentration.

are unlikely to occur. *Ekco Products Co.*, 65 FTC 1163, 1208 (1964), *aff'd.* 347 F. 2d 745 (7th Cir. 1965). Here, in any event, the record points to the existence of substantial entry barriers, and this, if anything, enhances the force of other evidence suggesting a likely anticompetitive impact from the merger.

We must also reject RSR's contention that the incriminating national concentration and production figures need be discounted in light of the limited extent to which Quemetco and RSR actually made sales in the same states at the time of their merger. Since the record establishes that the market for secondary lead is of national scope, and that prices in one region may directly affect prices elsewhere, the national figures lose no force by virtue of the fact that actually consummated sales by the merging parties overlapped only in certain states. These national figures reflect the total supply of secondary lead and the number and size of independent sources available to meet fluctuations in demand throughout the nation. As such, the figures are reliable indicators of the competitive effects of this merger.

Moreover, our own analysis leads us to conclude that the degree of nationwide overlap in sales areas between RSR and Quemetco at the time of their merger was substantial, and significantly greater than respondent allows. In arguing the insignificance of horizontal overlap, RSR seeks succor in the words of the ALJ, who concluded that "the market overlap between the two firms was largely limited to a portion of the Midwest . . ." (I.D. p. [112a]) The ALJ properly recognized, of course, the significant competitive overlap between RSR and Quemetco in the Midwest, where RSR had established a major market position

from its Dallas plant while Quemetco similarly shipped large quantities from its Indianapolis smelter. As the ALJ found, the merger of the two firms eliminated substantial competition in the Midwest region (I.D. p. [107a]), including particularly Indiana and Illinois, states which by themselves accounted for more than 20% of total lead consumption and 23.5% of antimonial lead consumption in 1972 (CX 19X).

The ALJ neglected, however, to recognize what was in essence an additional major horizontal overlap in the Northeast,[19] where RSR had competed via its Newark plant supplemented by output from Dallas, and where, at the time of the merger, Quemetco was about to compete through its Wallkill addition. The record is clear that RSR planned to replace its obsolete Newark smelter with a new plant, and had gone so far as to make a public offering of 320,000 shares of common stock on August 24, 1972 in order to obtain construction funds. (I.D. 15, 343) When RSR found it could acquire Quemetco, plans for the new plant were abandoned. (CX 6D)

Respondent suggests that if any lessening of competition resulted from these events it was at most the loss of substantial *potential* competition, a theory of liability not pleaded in this case. We think a more realistic characterization of what occurred is simply that RSR chose to *maintain* its longstanding market position in the Northeast by acquiring Quemetco, thereby eliminating it as an

[19] Northeast states to which RSR's Newark plant made substantial shipments in 1972 included Pennsylvania, New Jersey, New York, Maryland, and Connecticut, with smaller shipments to Massachusetts and Rhode Island. (CX 76A *in camera*)

independent competitive vendor of secondary lead. The typical potential competition case involves a merger which combines an actual competitor with one which harbors only aspirations of entering a particular market. The merger in this case combined a longstanding market participant, whose dedication to remaining in the market was beyond question, with a company which was not merely planning to enter, but had actually constructed a plant and was soliciting customers for imminent sales at the time of its acquisition. By any realistic measure, Quemetco's presence in the Northeast was more than merely potential at the time it was acquired, as was RSR's.

For the foregoing reasons, we think that the area of geographic overlap, in which both RSR and Quemetco actually did or were about to compete substantially included both the Northeast and the Midwest, areas accounting for over 50% of national antimonial lead consumption. (CX 19X) The impact upon competition suggested by the raw concentration figures is thus more than the chimera RSR seeks to portray.

RSR also argues that the merger has enabled it to operate on a nationwide basis and thereby to provide, as no one has been able heretofore, effective competition to the industry leader, National Lead. The ALJ characterized this defense as reflecting a "skewed view of competition" (I.D. p. [108a]) and we must agree that it cannot constitute a reason for excusing the merger. See *Ford Motor Co.* v. *United States*, 405 U.S. 562, 569-70 (1972).

Respondent in essence asks us to conclude that a new, large RSR adds more to competition in the secondary lead industry than the loss of two smaller competitors subtracts.

In other words, a second Goliath is worth more than two (out of several) Davids. There may well be industries where that is true, industries whose consumers would best be served by two or three competitors in place of many.[20] But we think the law clearly presumes that as a rule this is not true, that beyond a certain point further increases in concentration, especially those resulting from mergers rather than from the judgment of consumers expressed through selective patronage of favored competitors, are more likely to diminish competition than to improve it. A contrary judgment we think should only be grounded upon the most compelling evidence that fewer and bigger is better, and such evidence is assuredly not present in this case.

While there are no doubt advantages which flow from multi-plant operation, it is clear from the record that both single plant firms and dual or treble plant producers, such as RSR and Quemetco were before their merger, have been quite capable of competing with National Lead in the past, and will likely remain so in the future. (I.D. 311) Prior to their union RSR and Quemetco were vigorous multi-plant rivals of both National Lead and *each other,* ranking respectively second and fifth in secondary lead production, with both in various stages of internal expansion. As a result of the merger one of these independent competitors was eliminated, competitive opportunities for certain customers were restricted (I.D. 349-351), and industry concentration was severely increased.

[20] It might be pointed out that the creation via merger of one more firm the size of RSR (a result to which the Commission could hardly object were it to accept respondent's arguments here) would leave nearly all secondary lead output in the hands of three firms.

In light of these considerations, we think respondent's affirmative defense provides no basis upon which to depart from the conclusion that this merger is likely to substantially lessen competition.

Respondent finally argues that the advent of the "maintenance free" battery, whose production requires calcium lead rather than antimonial lead, places in jeopardy the entire secondary lead industry and along with it complaint counsel's and Judge Hyun's analysis of the anticompetitive effects of this merger. Certainly the widespread replacement of ordinary batteries by maintenance free batteries, if it should occur, will have serious repercussions for recyclers of secondary lead, but we must agree with the ALJ that even looking at post-acquisition evidence, four years after the challenged merger, the future of maintenance free batteries remains too speculative to form any conceivable basis upon which to sanction the acquisition.

As the law judge noted there is wide disagreement among members of the lead and battery industries concerning the extent to which calcium lead batteries will replace ordinary batteries. While maintenance free batteries offer certain obvious advantages they are also more expensive and entail manufacturing difficulties that may impede their widespread acceptance. (I.D. 329) Despite the existence of such batteries for many years, no clear trend or industry consensus is yet discernible, and RSR's own in-house expert could only estimate that calcium lead batteries will account for 20% of production in 5 years while characterizing as "pure speculation" more extensive attempts at market share prognostication (Tr. 1114).

Even granting some of this speculation, widespread production of maintenance free batteries will not necessarily

destroy the secondary lead industry as it is presently constituted. Secondary lead smelters can and do produce calcium lead (I.D. 334), and as the ALJ predicted, it is quite possible that the same process will be followed for calcium lead batteries as for antimonial batteries, with the battery companies accumulating scrap, returning it to a smelter for reprocessing, and receiving in return lead for grids and perhaps some oxide. (I.D. 335) Such a scenario is surely no more speculative than the premonitions of industry restructuring to which it responds. Having reviewed the evidence on this score, summarized at I.D. 314-335, we must reject respondent's "failing industry" defense as a basis for condoning the merger or for seriously discounting evidence of its anticompetitive effects.

In conclusion, we believe the record amply demonstrates that RSR's acquisition of Quemetco was and is likely to substantially lessen competition in the national market for secondary lead. The merger combined the number two and number five firms in a highly concentrated industry, characterized in recent years by a net decrease in independent competitive entities and substantial though not insurmountable barriers to entry. The merger eliminated an important competitor and independent source of supply of secondary lead, and thereby significantly narrowed the choices available to purchasers in major consuming areas throughout the country, with anticompetitive results that in at least a few documented instances are a matter of record rather than of speculation. For all these reasons we affirm the finding of the administrative law judge that RSR's acquisition of Quemetco violated Section 7 of the Clayton Act.

Remedy

To redress the law violation which he found, the ALJ ordered that within one year respondent divest itself of its Indianapolis smelter. Judge Hyun reasoned that the area of effective competition between Quemetco and RSR prior to their merger was limited to the Midwest region, and that competition therein could be restored by the divestiture of Quemetco's Indianapolis plant, which had prior to the merger been in direct competition with RSR's Dallas plant for customers in the Midwest.

Complaint counsel take strong exception to this solution, contending that restoration of competition in the secondary lead industry requires divestiture of a viable multiplant Quemetco similar to that which was acquired. Complaint counsel have therefore set forth two proposals, one entailing the divestiture of the entire assets of Quemetco, including its Wallkill, Indianapolis, Seattle, and City of Industry smelters, the second ("Alternative A") providing for divestiture of these assets minus the Seattle smelter.

The principal purpose of relief in a Section 7 case is to restore competition to the state in which it existed prior to, and would have continued to exist but for, the illegal merger. *Ekco Products Co., supra* at p. 1216. Ordinarily, a presumption should favor total divestiture of the acquired assets as the best means of accomplishing this result, *United States* v. *Continental Can Company, Inc.*, 1964 Trade Cases, ¶71,264 at p. 80,138 (S.D.N.Y. 1964), although unusual circumstances may necessitate some departure from this norm.

The first question we must ask, in any event, is what relief is necessary to restore competition. The ALJ predicated his order on the conclusion that significant horizontal

overlap between RSR and Quemetco prior to their merger existed only in the Midwest. As our analysis in the preceding sections has made clear, we believe that in addition such significant overlap occurred in the East, where RSR competed both from its Newark and Dallas smelters, and where Quemetco had begun to solicit customers for its Wallkill smelter at the time of the merger. Clearly, but for this merger, RSR and Quemetco would have been competitors in the East, Quemetco through Wallkill and RSR through the successor to its Newark plant which it was committed to build. The ALJ's proposed order would not redress this situation.

In addition, the ALJ's order does not take account of the fact that prior to the merger both RSR and Quemetco were multi-plant firms which each competed or were about to compete (in the case of Wallkill) in areas of the country accounting for a majority of lead and antimonial lead consumption. The proposed order would, to be sure, leave RSR with the enhanced capacity to make substantial sales in all parts of the country, but would leave a one-plant successor to Quemetco likely to sell in only the Midwest region.

In light of these additional factors, we believe that a *prima facie* case clearly favors divestiture of a multi-plant Quemetco similar to that which was acquired. Respondent objects vigorously to such a possibility, contending that a multi-plant divestiture would not necessarily yield a viable Quemetco, and, at the same time, would deal a crippling financial blow to RSR.

On the question of viability we think the record contains no persuasive basis on which the Commission could responsibly conclude that a multi-plant Quemetco would not be in the future, as it was in the past prior to its acquisitions

by St. Joe and RSR, a viable operation. In seeking to defend the acquisition, respondent has urged the advantages of a multi-plant firm, and yet on the question of relief it suggests that a single plant divestiture is likely to be more feasible.[21] Certainly it cannot be forecast with absolute assurance that the divested Quemetco will find a willing buyer and become the vigorous competitor it once was. But neither is there anything more than speculation to justify the opposite conclusion, and in a merger case we think that absent clear proof, which is generally likely to come only at the compliance stage when a good faith effort to divest has been made, the presumption should be that an acquired competitive entity can be viably restored to its pre-acquisition status. This seems particularly true in the case of the proposed Quemetco divestiture, which would include at least three plants spanning the United States of which two, Indianapolis and Wallkill, are sizeable, modern, efficient units.

Respondent also argues that divestiture of a multi-plant Quemetco will impair its capital position to the point that it would be extremely unlikely to attempt re-entry into the East. Thus, argues respondent, divestiture of Wallkill will simply result in the eastern presence of Quemetco in place of RSR, not the presence of both.

The problem here is a difficult but not uncommon one. It arises whenever a merger has been followed by a commingling of assets such that restoration via divestiture of two separate competitive entities is impossible. The Commission was faced with a similar situation in *Diamond Alkali* 72 FTC 700 (1967). Diamond Alkali acquired a cement plant in Bessemer, Pennsylvania, while it already

[21] Perhaps a better characterization of respondent's position is that no divestiture is feasible.

operated plants in Painesville, Ohio. This gave rise to a finding that Section 7 had been violated, but by the time relief was to be entered, Diamond had eliminated its Painesville plants and was servicing the market (including customers of the Painesville plants) entirely through Bessemer. Nevertheless, the Commission ordered divestiture of the Bessemer plant, reasoning that this would restore that plant to its pre-acquisition status while leaving Diamond Alkali as a prospective entrant. Such an approach held out at least the possibility of restoring competition eliminated by the merger, while to have allowed retention by the acquiring firm of the merged assets would hold out none. 72 FTC at pp. 746-751.

In this situation we believe similar reasoning is apposite. Prior to acquiring Quemetco RSR was firmly committed to selling in the East, and was planning to replace its Newark smelter with a new eastern facility. In addition, RSR shipped substantial quantities of lead from its Dallas smelter to customers in the East, a practice which it could continue at least on an interim basis in order to retain the patronage of traditional purchasers. While there is no certainty that RSR would be immediately able to reoccupy the eastern market position it held and was planning to maintain via new construction prior to acquiring Quemetco, its eventual re-entry would remain at least a possibility. Thus, restoration of Quemetco to the market with RSR as a prospective entrant appears far preferable to simply allowing RSR to remain the sole actual (or potential) survivor of a merger between two important competitors.[22]

[22] A related situation occurs in potential competition cases when respondent argues after an adjudication of illegality that time or some other factor has dulled the desire for *de novo* entry it was originally found to have. We think in such instances it must be presumed, absent an overwhelming showing to the contrary, that the acquiring firm would be likely to continue along the path of *de novo* participation it was ploughing when the temptation of an unlawful merger intervened. As an alternative, the Commission has permitted the acquiring firm to retain the acquired assets, but required it to take steps to establish an independent competitor in the same market, *e.g.*, *Warner Lambert Co.*, Docket No. 8850 (Slip op. pp. 7-8, October 5, 1976).

RSR also argues that after a multi-plant divestiture it will have a negative net worth, and face bankruptcy if its creditors seek to foreclose on the loan it received to acquire Quemetco. The law judge agreed that this possibility was grounds for the limited divestiture he approved.

As a general rule, the possibility that a corporation, or its stockholders, may suffer some loss of value as a result of actions necessary to redress the results of the corporation's illegal conduct can be of no relevance to the determination of proper relief in a Section 7 case. *United States* v. *Continental Can Co., supra,* at p. 80,139. The antitrust laws would deserve little respect if they permitted those who violated them to escape with the fruits of their misconduct on grounds that imposition of an effective remedy would incidentally result in even a substantial monetary loss. At the same time, the financial impact of a remedy upon a respondent is obviously relevant to the extent that a respondent's ability to compete may be diminished and competition itself thereby impaired. Distasteful as it may be to allow a malefactor to benefit from its illegal behavior, the purpose of Section 7 relief is not to punish but only to achieve the most pro-competitive result in light of the violation which has been found. In other words, it is the public interest we must consider in framing an order, without regard to the incidental impact

(favorable or unfavorable) upon the party whose actions have given rise to the necessity for relief.

In the instant case we would note preliminarily, that the precise impact which a divestiture of a multi-plant Quemetco may have upon RSR is highly speculative, depending upon a raft of assumptions as to sale prices, future profits, and accounting allocations that are subject to considerable dispute by the parties. A divestiture will most likely impair the capital position of respondent, but it would remain a viable competitor in the secondary lead market under its present ownership. Even were we to assume, however, (and such would be purely a matter of speculation on the basis of the present record, unsubstantiated by a preponderance of the evidence), that divestiture of a multi-plant Quemetco would inevitably lead to foreclosure on the assets of RSR, such a result would nevertheless not lead to the elimination of the company as a competitor in the market. Its principal asset, the Dallas plant, is most valuable either to RSR or a creditor for its capacity to produce and market secondary lead, and there can be little doubt that this large and efficient smelter will continue to operate and compete vigorously under whosever ownership regardless of the impact of divestiture on the stockholders of RSR. In this regard the situation differs from that before us in *Litton Industries, Inc.* 85 FTC 333 (1975) wherein Litton was allowed to retain a horizontal acquisition in the typewriter industry in part because the Commission determined that if forced to divest it was likely to liquidate its own remaining position in the industry. Here there is simply no reason to conclude this will happen.

For the foregoing reasons we conclude that a more complete divestiture of the acquired assets than that proposed

by the ALJ is necessary to restore competition in this case. We believe that "Alternative A" proposed by complaint counsel constitutes the relief necessary and sufficient to remedy the violation of law and satisfy the public interest. It provides for divestiture of a multi-plant Quemetco consisting of the pre-merger assets of Quemetco (including the Bestolife plant) to the extent they remain, minus the Seattle smelter. RSR will stay a multi-plant firm with its own Dallas plant along with Quemetco's Seattle smelter, enabling it to sell in the West Coast market (in competition with Quemetco's City of Industry Plant) an area it had not served before the merger. The divested Quemetco will consist of plants which in 1972 made or were about to make sales in states accounting for approximately 65% of nationwide lead consumption and 65-70% of antimonial lead consumption.[23] RSR post-divestiture will consist of plants which in 1972 sold in states accounting for more than 80% of total lead consumption and 75-80% of antimonial lead usage. (CX 19X; CX 69A-B, 75A-B *in camera*). The common areas served accounted for more than 50% of antimonial lead consumption, including principally the Midwest, East, and West Coast. (CX 19X; CX 69-71, 75-76 *in camera*). The relief ordered herein will restore two strong competitors in the Midwest region, leave two competitors in the West, and create at least the possibility of an additional independent competitor in the East.

An appropriate order is appended.

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[23] CX 19X; 70A, 71A, 76A *in camera*. This computation assumes only that the states served by Wallkill are the same as those served by the Newark plant, which was located in the same vicinity and had considerably smaller capacity.

APPENDIX

Supplemental Findings of Fact and
Modifications of Initial Decision

I. *Shipping Distances for Secondary Lead*

The law judge made findings with respect to the average shipping distance for lead produced by RSR and Quemetco plants, and the companies as a whole. (I.D. 217-219 *in camera*) In making his findings, the ALJ relied upon computations introduced by respondent in RX 29 and 31 (*in camera*). These computations in turn were derived from arrays of raw data, listing customers, shipping distances, and amounts shipped. The raw data was introduced into the record by complaint counsel as CX 65, 69-77, 79 (*in camera*).

Respondent computed average shipping distance by first multiplying the tonnage shipped to each particular customer by the distance to that customer's plant from the smelter. The sum of so-called "ton miles" for all customers was then computed, and divided by the total number of tons produced to obtain an average shipping distance. However, in arriving at this figure, respondent included within it inter-corporate transfers of lead, most of which were intraplant transfers involving no shipping distance. At both RSR and Quemetco smelters a significant fraction of lead production, often 20-30%, is transferred to the oxide department where it is made into lead oxide or other lead byproducts and subsequently reshipped to customers. Respondent counted such intraplant transfers as constituting a shipment of the particular quantity of lead in-

volved for a distance of zero miles. To illustrate, if a particular plant manufactured four tons of lead, shipped three tons to a customer 400 miles away, and transferred one ton to the smelter's own oxide department, respondent would calculate the average shipping distance of that output as follows:

Ton miles = (400 x 3) + (zero x 1) = 1200
Tonnage shipped = 4 tons
Average shipping distance = 1200/4 = 300 miles

This procedure is subject to question if one's desire is to determine how far a smelter can and does ship its output to *those for whose patronage it is competing,* which is, of course, what one must be concerned about in attempting to define a market or assess the competitive potential of a firm. We think complaint counsel quite properly objected to respondent's approach, although the ALJ would have been better assisted in making his findings within the time available to him had complaint counsel actually made calculations based on an alternative formula rather than simply objecting to respondent's proposal.

In any event, the Commission has recalculated the average shipping distances using the raw data in the record but excluding intraplant transfers of lead. (In the few instances in which they occurred we have also excluded interplant transfers of lead, *e.g.,* shipments of lead from Quemetco's Seattle plant to its Los Angeles plant; inclusion of such transfers would raise the Commission's figures slightly.) The figures cited below, computed as described, provide a more meaningful picture of how far RSR and Quemetco were able to ship and did ship their output to compete for business during the 22 months prior

to their merger than do those cited by the ALJ and form the basis for the textual discussion of shipping distances:[24]

Average Shipping Distances of Secondary Lead Shipped for Sale to Lead Consumers; 1971 & 1972

Plant	(1) Total Ton-Miles	(2) Tonnage Shipped	(1)÷(2) Avg. Shipping Distance
RSR-Dallas (1971)	11,446,772	38,235.2	299 miles
Dallas (1972)	16,874,033	41,156.2	410
RSR-New Jersey (1971)	2,727,504	22,836.3	119
New Jersey (1972)	2,913,471	21,331.5	137
Total, 1971-2	33,961,780	123,559.2	275
Quemetco			
Seattle (1971)	4,157,934	7,699.9	527
Seattle (1972)	4,758,091	8,583.2	554
Indianapolis (1971)	943,123	6,240	151
Indianapolis (1972)	703,875	5,129.3	137
City of Industry (1971)	1,026,344	15,645.4	66
City of Industry (1972)	741,870	13,110.4	57
Total, 1971-2	12,331,237	56,408.2	219

[Derived from CX 69-77, 79, "Tonnage Shipped" excludes lead consumed within the producing plant or shipped from the producing plant to another plant of the same company.]

[24] We note that the record lacks data regarding the distance to which RSR and Quemetco subsequently shipped the lead oxide produced from lead transferred intraplant. Inclusion of such shipping distances in the aggregate figures would be a possible alternative to the one taken here. It, too, would clearly yield figures much higher than those cited by respondent. Assuming that lead oxide is sold to the same battery manufacturers who purchase respondent's alloyed lead, this alternative approach would likely yield figures very similar to those derived by the Commission.

Percentage of Output Shipped Various Distances (Excluding Lead Production Transferred Intraplant or Intracompany):
(Figures Rounded to nearest 1/10%)

RSR Dallas Plant	*1971*	*1972* (Jan.-Oct.)
1500-1600 miles	0.3%	6.0%
1400-1500 "	0.1%	.2%
1101-1200 "	1.3%	—
901-1000 "	8.7%	11.1%
801-900 "	2.7%	3.8%
701-800 "	10.2%	8.9%
601-700 "	0.1%	3.1%
501-600 "	7.8%	5.6%
401-500 "	2.9%	7.3%
301-400 "	—	1.1%
201-300 "	10.9%	9.1%
101-200 "	10.6%	4.4%
0-100 "	44.2%	39.5%
	99.8%	100.1%

[Derived from CX 75, 79; Figures do not add to 100% due to rounding.]

Quemetco Seattle Plant	*1971*	*1972* (Jan.-Oct.)
1201-1300 miles	1.5%	—
1101-1200 "	16.4%	17.1%
901-1000 "	11.1%	14.6%
801-900 "	2.0%	1.2%
701-800 "	10.8%	13.7%
301-400 "	5.2%	1.7%
201-250 "	.8%	.1%
151-200 "	49.5%	49.1%
0-50 "	2.7%	2.5%
	100.0%	100.0%

[Derived from CX 74, 69]

II. *Other Modifications*

The Findings of Fact and Conclusions of Law set forth in the Initial Decision of the Administrative Law Judge are adopted by the Commission, except to the extent they

are qualified in the Commission's Opinion and in this Appendix.

The following portions of the Initial Decision are deleted from the Findings of the Commission or otherwise modified where indicated:

I.D. 13, first sentence [Post-acquisition testimony regarding purposes of the merger by employees of the acquiring company must be regarded with suspicion absent some corroboration; we do not believe the cited testimony is adequate basis to reach any definite conclusion as to respondent's motives for consummating the merger, whatever may be the relevance of such motives.]

I.D. 35, final sentence [Unsupported by the record, and contrary to I.D. 119.]

I.D. 119, third sentence [Unsupported by the preponderance of the evidence and contrary to I.D. 119, first sentence.]

I.D. 148, change 2d line of print to read "president of St. Joe Minerals Corp., the leading producer of lead" [miscitation of testimony]

I.D. 160-161, 163 [Oversimplification, contrary to the preponderance of the evidence, and contrary to other findings.]

I.D. 164, third sentence [Substitute I.D. 106.]

I.D. 181, third sentence [Oversimplified summary statement; see discussion in Geographic Market.]

I.D. 185, second sentence [A more exact characterization is contained in Appendix, Part A, and elsewhere generally in discussior of Geographic Market.]

I.D. 185, final sentence [See Appendix, Part I.]

I.D. 191-193 [Figures cited count internally transferred lead as shipments to customers; See Appendix, Part I.]

I.D. 197 [Modified to the extent that the preponderance of the evidence does not support the statement that Quemetco did not solicit in the "Mid-Atlantic" for its Wallkill plant. The plant is located in the Mid-Atlantic region and Quemetco solicited customers for it, and its policy was to solicit close to each plant site. (I.D. 196)]

I.D. 198, first sentence [This sentence is misleading in light of the concentration of lead and antimonial lead consumption, see CX 19X; the rest of the finding must also be qualified in light of uneven geographic consumption patterns, CX 19X.]

I.D. 199-203 [Figures cited count internally transferred lead as shipments to customers; See Appendix, Part I.]

I.D. 205, second sentence [See Appendix, Part I.]

I.D. 217-218 [Substitute Appendix, Part I.]

I.D. 223-225 [These findings, which mention some of the firms and plants to which RSR and Quemetco sold, are retained because they embody undisputed matters of fact. (Complaint counsel have urged excision.) However, their relevance to the issues at bar must be severely qualified in light of what seems a rather obvious point pressed upon us by complaint counsel but resisted by respondent. In

assessing the existence of "common customers" for the purposes of defining a market or measuring the extent of competition between RSR and Quemetco, we are interested in the entities for whose patronage RSR and Quemetco competed. Here, as in many cases, these number far more than those to which the merger parties actually consummated sales. The customers for whose business Quemetco and RSR competed before their merger were those which bought in the areas in which RSR and Quemetco sold, those whose business RSR and Quemetco solicited and those which might reasonably have turned to RSR and Quemetco as sources of supply. While the record reflects that some battery manufacturers prefer to buy secondary lead from two sources at the same time, rather than one, this still means that a manufacturer will end up not buying from the remaining sources. The number of plants which actually received shipments from both RSR and Quemetco during a limited time period (the ALJ found five in 1971-72, I.D. 225) is, therefore, a poor measure of the number of customers for whose business RSR and Quemetco competed, just as the number of households owning both a General Electric and a Whirlpool dishwasher during a given period of time would be a very poor measure of the number of consumers for whose patronage those two competed.]

I.D. 235, second and third sentences [See I.D. 311.]

I.D. 251-252 [These findings are unnecessary to our disposition of the case since on appeal no violation

is alleged in the overall lead market. The Commission expressly reserves judgment on the propriety of the ALJ's analysis of concentration in the overall lead market, which takes no account of the fact that St. Joe's acquisition of Quemetco was under challenge at the time it was sold to RSR.]

I.D. 272, second sentence [See discussion of entries and exits at p. [143a] *supra.*]

I.D. 292, first sentence [See discussion of potential entrants at p. [144a] *supra*; the extent to which battery manufacturers are at the present time likely potential entrants is severely qualified by the factors discussed therein and elsewhere in the initial decision.]

I.D. 310 [This conclusion as to efficiencies resulting from the merger, based entirely on the testimony of an employee of RSR, is cast into doubt by contradictory testimony of a rebuttal witness at Tr. 2274-76, 2296-97, and on balance we conclude it is not supported by a preponderance of the evidence.]

I.D. 352 [This finding is qualified to the extent that, as the witness himself pointed out, an estimate of the resale value of individual plants is only one factor to be taken into account in assessing the resale value of a *company.*]

I.D. 353 [This speculative finding concerning the financial impact of divestiture upon RSR is not warranted by the preponderance of the evidence; see pp. [155a-156a] *supra.*]

December 2, 1976

FINAL ORDER

This matter having been heard by the Commission upon the cross-appeals of respondent's counsel and complaint counsel from the initial decision, and upon briefs and oral argument in support thereof and opposition thereto, and the Commission for the reasons stated in the accompanying Opinion having determined to grant the appeal of complaint counsel:

It Is Ordered that the initial decision of the administrative law judge, pages [1a-110a], be adopted as the Findings of Fact and Conclusions of Law of the Commission, except to the extent inconsistent with, and as indicated in, the accompanying Opinion and Appendix thereto.

Other Findings of Fact and Conclusions of Law of the Commission are contained in the accompanying Opinion.

It Is Further Ordered that the following Order to Divest and to Cease and Desist be, and it hereby is, entered:

ORDER

I.

It Is Ordered that Respondent, RSR Corporation (hereinafter "RSR"), a corporation, and its officers, directors, agents, representatives, employees, subsidiaries, affiliates, successors and assigns, shall divest all assets, title, properties, interest, rights and privileges, of whatever nature, tangible and intangible, including without limitation all buildings, machinery, equipment, raw material reserves, inventory, customer lists, trade names, trademarks, and other property of whatever description acquired by RSR as a result of its acquisition of Quemetco, Inc. (hereinafter "Quemetco") together with all additions and improvements to Quemetco which have been added to Quemetco subsequent to the acquisition except that the acquired facility located in Seattle, Washington and the capital derived from the sale of the acquired interest in the facility located in the Republic of Mexico are excluded from divestiture by this Order. Such divestiture shall be absolute, shall be accomplished no later than one (1) year from the service of this Order, and shall be subject to the prior approval of the Federal Trade Commission.

II.

It Is Further Ordered that such divestiture shall be accomplished absolutely to an acquirer approved in advance by the Federal Trade Commission so as to transfer Quemetco as a going business and a viable, competitive, independent concern engaged in the manufacture, production, distribution and sale of secondary lead, secondary lead alloys and lead products.

III.

It Is Further Ordered that pending any divestiture required by this Order, Respondent shall not knowingly cause or permit the deterioration of the assets and properties specified in Paragraph I in a manner that impairs the marketability of any such assets and properties. Respondent may but shall not be required to make capital expenditures for the improvement of any such assets and properties.

IV.

IT IS FURTHER ORDERED that pursuant to the requirements of Paragraph I, none of the stock, assets, properties, rights, privileges and interests of whatever nature, tangible or intangible, acquired or added by RSR, shall be divested, directly or indirectly, to anyone who is at the time of the divestiture an officer, director, employee or agent of, or under the control, direction or influence of RSR, or anyone who owns or controls, directly or indirectly more than one (1) percent of the outstanding shares of the capital stock of RSR or to anyone who is not approved in advance by the Federal Trade Commission.

V.

IT IS FURTHER ORDERED that, for a period commencing on the effective date of this Order and continuing for ten (10) years from and after the date of completing the divestiture required by this Order, RSR shall cease and desist from acquiring, directly or indirectly, without the prior approval of the Federal Trade Commission, the whole or any part of the stock, share capital, assets, any interest in or any interest of, any domestic concern, corporate or non-corporate, engaged in the manufacture, production, distribution or sale of secondary lead, secondary lead alloys and lead products, nor shall RSR enter into any arrangement with any such concern by which RSR obtains the market share, in whole or in part, of such concern in the above described product lines.

VI.

IT IS FURTHER ORDERED that on the first anniversary date of the effective date of this Order and on each anni-

versary date thereafter until the expiration of the prohibitions in Paragraph V of this Order, RSR shall submit a report in writing to the Federal Trade Commission listing all acquisitions, mergers and agreements to acquire or merge made by RSR; the date of each such acquisition, merger or agreement; the products involved and such additional information as may from time to time be required.

VII.

IT IS FURTHER ORDERED that within thirty (30) days from the effective date of this Order and every sixty (60) days thereafter until it has fully complied with Paragraph I of this Order, RSR shall submit a verified report in writing to the Federal Trade Commission setting forth in detail the manner and form in which it intends to comply, is complying or has complied therewith. All such reports shall include, in addition to such other information and documentation as may hereafter be requested, (a) a specification of the steps taken by RSR to make public its desire to divest Quemetco with the exception of the Seattle, Washington facility, (b) a list of all persons or organizations to whom notice of divestiture has been given, (c) a summary of all discussions and negotiations together with the identity and address of all interested persons or organizations, and (d) copies of all reports, internal memoranda, offers, counteroffers, communications and correspondence concerning said divestiture.

VIII.

IT IS FURTHER ORDERED that RSR shall notify the Commission at least thirty (30) days prior to any proposed changes which may affect compliance obligations arising

Opinion and Final Order of
the Federal Trade Commission, December 2, 1976

out of the Order, such as dissolution, assignment or sale resulting in the emergence of successor corporations, and that this Order shall be binding in any such successor.

By the Commission.

/s/ CHARLES A. TOBIN
Charles A. Tobin
Secretary

SEAL

Issued: December 2, 1976

Opinion of the United States Court of Appeals for the Ninth Circuit, July 30, 1979

UNITED STATES COURT OF APPEALS

FOR THE NINTH CIRCUIT

No. 77-1413

OPINION

RSR CORPORATION,

Petitioner,

vs.

FEDERAL TRADE COMMISSION,

Respondent.

Petition for Review of a Final Order of the Federal Trade Commission

Before:

KILKENNY and CHOY, *Circuit Judges,*
and PREGERSON,* *District Judge*

PREGERSON, District Judge:

INTRODUCTION

RSR Corporation (RSR) appeals from a Federal Trade Commission (FTC) order requiring divestiture of three lead smelting plants acquired through a 1972 merger with Quemetco, Inc. (Quemetco). The FTC adopted, with some modifications, the findings of the administrative law judge

* The Honorable Harry Pregerson, United States District Judge for the Central District of California, sitting by designation.

(ALJ) that the merger violated Section 7 of the Clayton Act, 15 U.S.C. § 18. RSR asserts that the following FTC findings were not supported by substantial evidence and were made through the application of erroneous standards of law:

(1) Secondary lead is the relevant product market;

(2) The entire United States is the relevant geographic market;

(3) RSR's acquisition of Quemetco may substantially lessen competition in the United States secondary lead market;

(4) Divestiture by RSR of all pre-merger assets except the Seattle plant is the proper remedy.

We affirm.

FACTS

Before the RSR/Quemetco merger, RSR operated two lead smelting plants, one in Dallas and the other in Newark. These plants produced secondary lead, which is lead that is recycled from scrap automobile batteries and tetraethyl slag, as distinguished from primary lead, which is lead that is processed from raw lead ore. RSR's principal product was "hard" lead, which is lead containing other metals, such as antimony or cadmium. RSR also produced some "soft" lead, which is relatively pure. In 1972 RSR, the country's second largest producer of secondary lead, produced 12.16% of the secondary lead in the United States.

Before the merger Quemetco, a wholly-owned subsidiary of St. Joe Minerals Corporation, operated lead smelting

plants in Seattle, Indianapolis, and City of Industry, California. A fourth plant, in Walkill, New York, was nearing completion at the time of the merger. In 1972 Quemetco produced 7.02% of the secondary lead in the United States and ranked fifth among the nation's secondary lead producers.

After the merger in late 1972, the newly-constituted RSR remained the second-largest secondary lead producer, but had a new combined production total of 19.18% *pro forma* of total secondary lead production in the United States. Within a few months, the merged company had five operating plants: Seattle, Dallas, Indianapolis, City of Industry, and Walkill. RSR's Newark plant was not replaced when its lease terminated in early 1973, even though RSR had planned before the merger to construct a new plant there.

The FTC charged in April 1974 that the RSR/Quemetco merger violated Section 7 of the Clayton Act because the merger would substantially lessen competition in the secondary lead market. After holding hearings, the ALJ decided that Section 7 had been violated in the secondary lead market, which he found to be a proper submarket within the overall lead market. Since the ALJ found that market overlap between RSR and Quemetco was limited to the Midwest, he recommended that RSR divest itself of the Indianapolis plant.

Both sides appealed to the full FTC, which adopted the ALJ's decision with some modifications. The FTC agreed that the secondary lead market was the proper submarket, that secondary lead was the relevant product market, that the United States as a whole was the appropriate geographic market, and that the RSR/Quemetco merger could

substantially lessen competition in the national secondary lead market. The FTC found, however, that before the merger the two companies had competed in markets in addition to the Midwest market, and that this competition took place in regions accounting for the major share of domestic lead consumption. The FTC therefore ordered RSR to divest itself of all pre-merger Quemetco assets except the Seattle plant, leaving RSR with two plants, in Dallas and Seattle, and Quemetco with three plants, in Walkill, Indianapolis, and the City of Industry. The FTC reasoned that the two newly-reconstituted firms could then compete in the West and Midwest markets immediately, and in the Northeast market as soon as RSR replaced its former Newark plant.

STANDARD OF REVIEW

The standard of review that this court must apply to the FTC's findings of fact is set out in Section 5(c) of the F.T.C. Act, 15 U.S.C. § 45(c): "The findings of the commission . . . as to the facts, if supported by substantial evidence, shall be conclusive." This statutory language has been judicially interpreted to confine the exercise of appellate review of agency fact finding to a determination whether the agency's findings are supported by substantial evidence. *Ash Grove Cement Co.* v. *F.T.C.*, 577 F.2d 1368, 1378 (9th Cir. 1978). Substantial evidence is "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *Consolo* v. *Federal Maritime Commission*, 383 U.S. 607, 620 (1966). As the Fifth Circuit aptly summarized:

> Findings of fact cannot and will not be set aside if the evidence in the record reasonably supports the

> administrative conclusion, even though suggested alternative conclusions may be equally or even more reasonable and persuasive. The findings must stand unless they were wrong, and they cannot be wrong—that is, reversibly wrong—if substantial evidence supports them.

Colonial Stores Inc. v. *F.T.C.*, 450 F.2d 733, 739-40 (5th Cir. 1971). *See also Carter Products, Inc.* v. *F.T.C.*, 268 F.2d 461, 496-97 (9th Cir.), *cert. denied*, 361 U.S. 884 (1959).

DISCUSSION

PRODUCT MARKET

The parties first disagree over whether the overall lead market (including both primary and secondary lead) or the secondary lead market alone is the relevant product market for testing the RSR/Quemetco merger under Section 7. RSR contends that substantial competition exists between primary and secondary producers in the production of soft lead; thus, the overall lead market must be considered. The FTC, relying on distinctions between the primary and secondary lead markets, argues that the secondary lead market alone is the relevant product market.

The factors used to determine the relevant product market in an antitrust case were set out by the Supreme Court in *Brown Shoe Co.* v. *United States*, 370 U.S. 294 (1962). The Court stated that the outer boundaries of a product market can be determined by the "reasonable interchangeability of use or the cross-elasticity of demand between the product itself and substitutes for it." *Id.* at 325. The Court observed that well-defined submarkets may also exist

which, in themselves, can constitute product markets for antitrust purposes, and suggested that determining the boundaries of such a submarket could be done "by examining such practical indicia as industry or public recognition of the submarket as a separate economic entity, the product's peculiar characteristics and uses, unique production facilities, distinct customers, distinct prices, sensitivity to price changes, and specialized vendors." *Id.* The Court then explained that, since Section 7 prohibits any merger that may substantially lessen competition in *any* line of commerce, the effects of a merger must be examined in each economically-significant submarket to determine if there is a reasonable possibility that the merger will substantially lessen competition in that submarket. If the merger could do so, it violates Section 7. *Id.* Finally, the Court held that these indicia apply to a horizontal merger, the type of merger involved in the instant case. *Id.* at 336.

In *International Telephone & Telegraph Corp.* v. *General Telephone & Electronics Corp.*, 518 F.2d 913, 932 (9th Cir. 1975), this court recognized that the *Brown Shoe* indicia are to be used as practical aids rather than as conclusive evidence on the submarket issue. We commented: "Whether or not a court is justified in carving out a submarket depends ultimately on whether the factors which distinguish one purported submarket from another are 'economically significant' in terms of the alleged anticompetitive effect." *Id.*

In determining that the secondary lead market is a proper submarket to be used as the relevant product market, the ALJ and the FTC relied heavily on the *Brown Shoe* indicia. In doing so they found that the distinctions

between the overall lead market and the secondary lead market are economically significant.

We have considered each of the *Brown Shoe* indicia separately and find that substantial evidence supports the FTC's determination that the secondary lead market is the relevant product market for testing the RSR/Quemetco merger. We have briefly summarized some of this evidence below.

Industry or public recognition of the submarket as a separate economic entity: Evidence was presented to show that the lead industry distinguishes between primary and secondary lead in terms of the products and their producers. RSR contends that this recognition signifies only that the industry is aware of the different raw material source for each type of lead. Nevertheless, evidence indicated that consumers and lead producers, as well as national production reports, distinguish between the two types of lead.

Product's peculiar characteristics: Secondary lead is derived from recycling other lead products, not from smelting raw lead ore. As a result, secondary lead as a rule contains impurities (primarily metals) not found in primary lead. Secondary lead, although it can be purified almost to the degree of pure lead, is generally used as hard or metallic lead. Primary lead, since it is pure and free of hardening metals, is generally used as soft lead. Soft lead and hard lead are generally not used for the same purposes. Primary and secondary soft lead can sometimes be interchanged, as can primary and secondary hard lead, but certain uses require either primary lead, while other uses require secondary lead. Moreover, it is usually not economical for a primary producer to manufacture hard lead.

Secondary producers obtain some soft lead as a by-product of the manufacture of antimonial lead; due to impurities, this soft lead is generally not suitable for most industrial soft lead uses.

Distinct customers: At the time of the FTC hearing, hard lead was chiefly used for automobile battery posts and grids, while soft lead was used for battery oxides and tetraethyl lead, an antiknock additive to gasoline. Battery manufacturers were thus the major customers of both primary and secondary lead producers. Evidence was presented to show that some customers specify not only that they require hard or soft lead but also that they want primary or secondary lead.

Distinct vendors: Most of the lead produced by primary producers is pure or soft lead. Although metal can be added to the pure lead to harden it, the evidence shows that it is not economical to do so. Moreover, casting characteristics of artificially-hardened lead make it unsuitable for battery grids and posts. Thus, primary producers generally restrict their production to soft lead. Secondary producers, on the other hand, chiefly produce hard lead. During the production of antimonial lead, a hard lead, some soft lead is also produced. At the time of the merger, secondary producers were using most of this soft lead in their internal operations rather than selling it to manufacturers of battery oxides.

RSR argues that it now produces more soft lead than at the time of the merger, allowing it now to compete more effectively with primary producers. RSR also argues that increased use of calcium-lead batteries (the "maintenance-free" batteries) is changing the lead market because calcium lead can be made as easily from primary lead as from secondary lead. This change, according to RSR, gives secondary producers another reason to heighten competition with primary producers. The FTC, however, found that the future of calcium-lead batteries is too speculative to be given much weight in evaluating a 1972 merger. Moreover, we note that post-merger evidence is entitled to only "extremely limited" weight in refuting charges of anticompetitive effect made in connection with a Section 7 challenge. *United States* v. *General Dynamics Corp.*, 415 U.S. 486, 504-05 (1974); *Ash Grove Cement Co.* v. *F.T.C.*, 577 F.2d 1368, 1378-79 (9th Cir. 1978).

Distinct prices: RSR presented evidence that only one worldwide price is set for lead; no distinctions between primary and secondary lead are made on the London Exchange. But the evidence showed and the FTC found that, although both primary and secondary producers discount the price of lead, secondary lead customarily sells for about 10% less than primary lead.

Sensitivity to price changes: Because secondary lead is generally shipped over shorter distances than primary lead, secondary producers customarily ship by truck while primary producers ship by rail. Evidence was presented to show that trucking costs vary more widely than rail costs, causing secondary lead prices to vary accordingly.

Although some of the evidence presented to the FTC was open to differing interpretations, we are not permitted to second-guess its findings if supported by substantial evidence. We hold that the findings were so supported and that the FTC correctly applied the law in making its findings on relevant product market.

GEOGRAPHIC MARKET

As its second contention, RSR strenuously argues that the relevant geographic market to be used in testing the RSR/Quemetco merger for a Section 7 violation should not be the entire United States. Nonetheless, RSR does not suggest an alternate market.

The parties agree that, due to high trucking costs, secondary lead producers attempt to ship their products to customers located within a few hundred miles of the plants. Since the RSR and Quemetco plants were located in different areas of the country, RSR argues that Quemetco and RSR were not actually competing anywhere in the country. Alternatively, RSR argues that the only place in which there might have been competition was in the Midwest market, which could be served by both Quemetco's Indianapolis plant and RSR's Dallas plant.

The ALJ found that competition existed between the two companies only in the Midwest area, but determined that the entire United States was the relevant geographic market because the merger lessened competition in the nationwide secondary lead market. The FTC, however, found that RSR and Quemetco competed to a significant degree, particularly in the Midwest and Northeast, through the Dallas/Indianapolis and Newark/Walkill plants. The FTC assumed that, without the merger, RSR would have replaced its Newark plant with another plant in the Newark area, and that the new plant would have competed with Quemetco's new Walkill plant.[1]

[1] Evidence was presented to the FTC showing that RSR had intended to replace the Newark plant with a new plant, also in Newark, and had even proposed a stock offering to finance the construction. Those plans were dropped when the merger took place, since the Walkill, New York plant could serve the same market as a Newark plant.

In determining relevant geographic market we again look for guidance to *Brown Shoe Co.* v. *United States, Supra,* 370 U.S. 294, 336-37 (1962):

> The criteria to be used in determining the appropriate geographic market are essentially similar to those used to determine the relevant product market. . . . The geographic market selected must, therefore, both "correspond to the commercial realities" of the industry and be economically significant. . . . *The fact that two merging firms have competed directly on the horizontal level in but a fraction of the geographic markets in which either has operated, does not, in itself, place their merger outside the scope of § 7.* That section speaks of "any . . . section of the country," and if anticompetitive effects of a merger are probable in "any" significant market, the merger—at least to that extent —is proscribed. (Emphasis added.)

To decide that the merger violated Section 7, the FTC was not required to find that Quemetco and RSR competed on a nationwide basis.

Although the FTC recognized that high trucking costs cause secondary producers to ship most of their product to customers within a few hundred miles, evidence was presented to show that the distances over which secondary lead producers were willing to ship products varied according to economic and market conditions, including plant size, secondary lead prices in a certain region, and fluctuations in transportation costs. RSR relies heavily on data showing that Quemetco, in 1971 and 1972, shipped lead to less than ⅓ of the states. But the evidence also showed that the states into which Quemetco shipped its lead were

the states where most of the lead was consumed.[2] Furthermore, the evidence showed that many of the major battery manufacturers, the primary consumers of antimonial lead, are concentrated in the Midwest, with smaller groups in the Northeast and in Southern California. Thus, the fact that RSR and Quemetco did not compete in every state is of little relevance when many states generate little or no demand for secondary lead. Finally, evidence was also presented showing that regional pricing patterns for secondary lead are interrelated.[3]

Evidence on the pre-merger competition between RSR and Quemetco, coupled with evidence of pricing interdependence nationwide and evidence of the ability of secondary producers to ship lead into states in which most secondary lead is consumed, is substantial. That evidence is sufficient to support the FTC's factual findings on the relevant geographic market issue.

RSR contends, however, that the FTC's findings are incorrect as a matter of law. It relies on two 1974 Supreme Court decisions, *United States* v. *Connecticut National Bank*, 418 U.S. 656, 667 (1974); and *United States* v. *Marine Bancorporation, Inc.*, 418 U.S. 602, 622 (1974). These cases hold that the proper geographic market should be defined as the area in which the acquired firm is in direct compe-

[2] For example, in 1972 the states within a 300 mile radius of Quemetco's plants accounted for over 60% of antimonial lead consumption. In 1971, RSR shipped lead to states accounting for over 70% of antimonial lead consumption.

[3] Evidence indicated that when one region discounts the price of secondary lead, the price is eventually affected nationwide. If prices are higher in one area, producers are willing to ship greater distances to get their product into that area. In turn, the price offered in other areas will rise so that consumers there will be assured of a supply of secondary lead.

tition with other firms in the industry or in which it is marketing a significant degree of goods or services. RSR argues that those cases compel a finding that, since RSR and Quemetco did not directly compete nationwide, the national secondary lead market cannot be the proper geographic market.

We do not accept this argument. Those cases involved the heavily-regulated banking industry, a fact upon which the court strongly relied in holding that the relevant geographic market was only that area in which the regulatory agencies permitted the banks to provide services. *United States* v. *Marine Bancorporation, Inc.*, 418 U.S. at 641. Because the locality of the competition was regulated, these cases are factually distinguishable from the situation before this court where unregulated market forces and other economic considerations determine the region where competition in fact occurs. Here these considerations indicate nationwide competition in the secondary lead market. Thus, the relevant geographic market is, as found by the FTC, the entire United States.

We believe that the FTC's factual findings are supported by substantial evidence and that the standards of law applied by the FTC in determining the relevant geographic market are correct.

LESSENING OF COMPETITION

RSR argues the FTC erred in finding that the RSR/Quemetco merger substantially lessened competition in the secondary lead industry. It is undisputed that, prior to their merger, RSR was the second-largest and Quemetco the fifth-largest secondary lead producer, in the country. After the merger, RSR remained the second-

largest producer but its market share increased from 12.16% to 19.18%. Prior to the merger, the top four secondary lead producers had 65.40% of the secondary lead market; the top eight firms had 81.41% of the market. As a result of the merger, the market shares increased to 72.41% for the top four and 83.77% for the top eight. Evidence was introduced, however, that in the years prior to the merger more firms had left the secondary lead business than had entered it, including several battery manufacturers who tried recycling secondary lead for a time but gave up, and that start-up costs for a new entry into the business were steadily rising.

In finding that these factors supported the conclusion that the RSR/Quemetco merger was inherently likely to lessen competition in the secondary lead industry, the FTC relied on the Supreme Court's holding in *United States* v. *Philadelphia National Bank*, 374 U.S. 321, 363 (1963), where the Court stated:

> [W]e think that a merger which produces a firm controlling an undue percentage share of the relevant market, and results in a significant increase in the concentration of firms in that market, is so inherently likely to lessen competition substantially that it must be enjoined in the absence of evidence clearly showing that the merger is not likely to have such anticompetitive effects.

The Court further noted that "if concentration is already great, the importance of preventing even slight increases in concentration and so preserving the possibility of eventual deconcentration is correspondingly great." *Id.* at 365 n. 42. In *Philadelphia National Bank*, where the top four

firms had a market share of 78%, the Court found that a post-merger market share of 30% raised an inference that the merger was anticompetitive. *Id.* at 364-65. Post-merger market data thus may be sufficient to support a finding that a merger was anticompetitive. The Court cautioned, however, that a merger resulting in less than a 30% post-merger market share for the merged company would not raise an inference that the merger did not violate Section 7. *Id.* at 364 n. 41.

RSR argues that the post-merger data—showing the RSR/Quemetco market share to be 19.18% and the top four's market share to be 72.41%—do not present a market share large enough to create a presumption of illegality. In rebuttal, the FTC points to cases holding concentrations smaller than those involved here sufficient to raise a presumption of illegality. *See United States* v. *Pabst Brewing Co.*, 384 U.S. 546, 551-52 (1966) (merger of tenth and eighteenth largest beer sellers, resulting in a market share of 4.49%, where top eight had 59% of the market); *United States* v. *Von's Grocery Co.*, 384 U.S. 270, 274 (1966) (merger of third and sixth largest grocery chains, resulting in a market share of 7.5% where top four had market share of 28.8%). Moreover, even if the FTC was incorrect in finding a violation of Section 7 based solely on market share, its finding of anticompetitive effect is supported by evidence showing that the merged RSR extracted more favorable terms in the marketplace than were obtained by the separate companies before the merger.

RSR next contends that, even if some anticompetitive effects are felt as a result of the merger, competition in the overall secondary lead market will increase because

the enlarged RSR will be better able to compete with the industry giant, NL Industries. A similar argument was rejected by the Court in *United States* v. *Philadelphia National Bank, supra,* 374 U.S. 321 (1973), where the merging banks argued that larger banks in the Philadelphia area were needed to compete effectively with the New York City banks. Although the Court recognized that even if all commercial banks in Philadelphia were merged, the resulting bank would still be smaller than the largest New York City bank, the Court nevertheless held that the merger could not be justified on those grounds, stating that anticompetitive effects in one market cannot be offset by procompetitive effects in another market. *Id.* at 370-71. We similarly reject RSR's attempt to justify the RSR/Quemetco merger on such grounds.

RSR advances two additional arguments to support its contention that the FTC improperly applied the law when it found the merger to be anticompetitive. First, RSR asserts that its merger with Quemetco is the type of merger impliedly approved by *Philadelphia National Bank* where the Court observed that the case did not involve "two small firms in a market [who] propose to merge in order to be able to compete more successfully with the leading firms in that market." 374 U.S. at 370-71. This argument—a variation of the argument just rejected—must also fail, because a merger of the second and fifth largest firms in the secondary lead market is not the merger of "two small firms." Second, RSR argues that the merger can be justified because it allows greater efficiency of operation. This argument has been rejected repeatedly. *E.g., United States* v. *Philadelphia National Bank, supra,* 374 U.S. 321, 370 (1963); *Crown Zellerbach*

Corp. v. *F.T.C.*, 296 F.2d 800, 825 (9th Cir. 1961), *cert. denied,* 370 U.S. 937 (1962).

We believe that substantial evidence supports the FTC's finding that the merger was anticompetitive. Moreover, we find that the FTC adhered to the proper legal standard in determining that the RSR/Quemetco merger had a possibility of substantially lessening competition in the secondary lead market.

DIVESTITURE AS APPROPRIATE REMEDY

The FTC determined that complete divestiture of all pre-merger Quemetco assets would not be necessary to restore competition in the secondary lead market. The FTC instead proposed that RSR divest itself of the Indianapolis, Walkill, and City of Industry plants, retaining its Dallas plant and the former Quemetco plant in Seattle. This proposal was designed, according to the FTC, to restore competition between the two firms in the Midwest and to begin competition in the West.[4] Moreover, if RSR replaces its Newark plant, competition could be restored in the Northeast. The end result of the FTC's proposal would be that RSR would have two plants now, three when the Newark plant is replaced, to compete with Quemetco's three plants.

RSR finally urges us to find the FTC's divestiture proposal too broad, arguing that a more limited divestiture order is the proper remedy.

When a court reviews the discretionary relief fashioned by the FTC, particular emphasis is placed on the substan-

[4] Dallas would compete with Indianapolis; Seattle would compete with City of Industry; and Newark would compete with Walkill.

tial evidence rule. *Consolo* v. *Federal Maritime Commission, supra,* 383 U.S. 607, 620-21 (1966). Once a violation of Section 7 has been established, divestiture is the usual remedy. *Ford Motor Co.* v. *United States,* 405 U.S. 562, 573-74 (1972). As the Court noted in *United States* v. *E. I. duPont de Nemours & Co.,* 366 U.S. 316, 330-31 (1961), "Divestiture has been called the most important of antitrust remedies. It is simple, relatively easy to administer, and sure. It should always be in the forefront of a court's mind when a violation of § 7 has been found." (Footnotes omitted.)

The FTC clearly could have ordered complete divestiture of all pre-merger Quemetco assets. We do not believe that its attempt to tailor a limited divestiture order should be thwarted.[5]

Conclusion

After carefully considering the evidence presented to the FTC, we cannot say that its factual determinations were not supported by substantial evidence. Moreover, we are convinced that proper standards of law were used by the FTC in making those determinations. Finally, we

[5] Before the merger, Quemetco also owned the Bestolife plant in Dallas. The plant used lead to manufacture metallic-lead lubricants. The FTC ordered RSR to divest itself of the Bestolife plant. RSR argues that, since the Bestolife plant is not involved in the secondary lead market at all, the divestiture order is improper. We have noted, however, that complete divestiture of all pre-merger assets is the usual remedy for a Section 7 violation. The fact that the FTC chose to exempt the Seattle secondary lead plant from the divestiture order does not detract from the viability of the general divestiture rule. We decline to find that the FTC erred in ordering the divestiture of Bestolife.

believe that the FTC's proposed divestiture plan is a reasonable one.

Our previous opinion dated January 8, 1979, West Slipsheet p. 74 is withdrawn. The petition for rehearing is denied and the suggestion for rehearing in banc is rejected.

It Is So Ordered.

Order Extending Time to File Petition for Writ of Certiorari, October 18, 1979

SUPREME COURT OF THE UNITED STATES

No. A-328

RSR Corporation,

Petitioner,

v.

Federal Trade Commission

Upon Consideration of the application of counsel for petitioner,

It Is Ordered that the time for filing a petition for writ of certiorari in the above-entitled cause be, and the same is hereby, extended to and including December 14, 1979.

/s/ William H. Rehnquist
Associate Justice of the Supreme Court of the United States

Dated this 18 day of October, 1979.